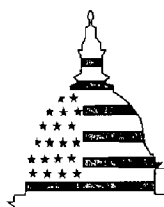


September 2005

LIVESTOCK GRAZING

Federal Expenditures and Receipts Vary, Depending on the Agency and the Purpose of the Fee Charged



G A O

Accountability • Integrity • Reliability



Highlights of [GAO-05-869](#), a report to congressional requesters

Why GAO Did This Study

Ranchers pay a fee to graze their livestock on federal land. Grazing occurs primarily on federal land located in the western states managed by 10 federal agencies. Generally, the fee is based on animal unit months (AUM)—the amount of forage that a cow and her calf can eat in 1 month. For most federal land, the fee per AUM is established by a formula. Advocates argue that grazing uses federal land productively and that the grazing fee is fair. Opponents argue that grazing damages public resources and that grazing fees are too low. GAO was asked to determine the (1) extent of, and purposes for, grazing in fiscal year 2004 on lands 10 federal agencies manage; (2) amount federal agencies spent in fiscal year 2004 to manage grazing; (3) total grazing receipts the 10 agencies collected in fiscal year 2004 and amounts disbursed; and (4) fees charged in 2004 by the 10 agencies, western states, and ranchers, and reasons for any differences.

In commenting on a draft of this report, the Department of the Interior and the Forest Service neither agreed nor disagreed with the findings. The Forest Service stated that the report accurately described the purpose of the grazing fee. The Army and Air Force and the Department of Energy provided technical comments, which we incorporated as appropriate. The departments of Commerce and of Justice responded that they did not have comments.

www.gao.gov/cgi-bin/getrpt?GAO-05-869.

To view the full product, including the scope and methodology, click on the link above. For more information, contact Robin Nazzaro at (202) 512-3841 or nazzaror@gao.gov.

LIVESTOCK GRAZING

Federal Expenditures and Receipts Vary, Depending on the Agency and the Purpose of the Fee Charged

What GAO Found

The 10 federal agencies managed more than 22.6 million AUMs on about 235 million acres of federal lands for grazing and land management in fiscal year 2004. Of this total, the Department of the Interior's Bureau of Land Management (BLM) and the U.S. Department of Agriculture's Forest Service managed more than 98 percent of the lands used for grazing. The agencies manage their grazing programs under different authorities and for different purposes. For BLM lands and western Forest Service lands, grazing is a major program; the eight other agencies generally use grazing as a tool to achieve their primary land management goals.

In fiscal year 2004, federal agencies spent a total of at least \$144 million. The 10 federal agencies spent at least \$135.9 million, with the Forest Service and BLM accounting for the majority. Other federal agencies have grazing-related activities, such as pest control, and spent at least \$8.4 million in fiscal year 2004.

The 10 federal agencies' grazing fees generated about \$21 million in fiscal year 2004—less than one-sixth of the expenditures to manage grazing. Of that amount, the agencies distributed about \$5.7 million to states and counties in which grazing occurred, returned about \$3.8 million to the Treasury, and deposited at least \$11.7 million in separate Treasury accounts to help pay for agency programs, among other things. The amounts each agency distributed varied, depending on the agencies' differing authorities.

Fees charged in 2004 by the 10 federal agencies, as well as state land agencies and private ranchers, vary widely. The grazing fee BLM and the Forest Service charge, which was \$1.43 per AUM in 2004, is established by formula and is generally much lower than the fees charged by the other federal agencies, states, and private ranchers. The other agencies, states, and ranchers generally established fees to obtain the market value of the forage. The formula used to calculate the BLM and Forest Service grazing fee incorporates ranchers' ability to pay; therefore the current purpose of the fee is not primarily to recover the agencies' expenditures or to capture the fair market value of forage. As a result, BLM's and the Forest Service's grazing receipts fell short of their expenditures on grazing in fiscal year 2004 by almost \$115 million. The BLM and Forest Service fee also decreased by 40 percent from 1980 to 2004, while grazing fees charged by private ranchers increased by 78 percent for the same period. If the purpose of the fee were to recover expenditures, BLM and the Forest Service would have had to charge \$7.64 and \$12.26 per AUM, respectively; alternately, if the purpose were to gain a fair market value, the agencies' fees would vary depending on the market. Differences in resources and legal requirements can cause fees to vary; however, the approaches used by other agencies could close the gap in expenditures and receipts or more closely align BLM and Forest Service fees with market prices. The purpose of the grazing fee is, ultimately, for the Congress to determine.

Contents

Letter

Results in Brief	1
Background	5
Grazing Occurs on About 235 Million Acres of Federal Lands for a Variety of Purposes	8
Federal Agencies Spent at Least \$144 Million on Grazing Activities, Although Some Agencies Do Not Track Expenditures for Grazing on Federal Lands	14
Federal Agencies Collected About \$21 Million in Grazing Receipts in Fiscal Year 2004—Less Than One-Sixth of the Expenditures Needed to Manage Grazing	20
Grazing Fees Charged by Federal Agencies, Western States, and Private Ranchers Varied Widely, Depending on the Purpose of the Fee and the Approach Taken to Set It	30
Concluding Observations	37
Agency Comments	50
	51

Appendixes

Appendix I: Objectives, Scope, and Methodology	55
Appendix II: Additional Factors in Evaluating Federal Grazing Expenditures and Revenues	61
Implications of Grazing for Local Economic Development	61
Implications of Grazing on Quality of Rural Communities and Rancher's Life	62
Implications of Grazing for Rangeland Ecosystems and Management	64
Appendix III: Detailed Grazing Data for Bureau of Land Management and the Forest Service	67
Acres and AUMs of Grazing	67
Permits and Leases by Size	75
Appendix IV: Grazing Fee for Lands Managed by BLM and the Forest Service	79
Current Fee for BLM's and the Forest Service's Western States	79
History of Western Grazing Fees	84
Appendix V: Examples of Other Federal Agency Grazing Fees	88
Appendix VI: Western State Grazing Fees and Formulas	93
Appendix VII: Comment from Department of the Interior	102
GAO Comments	104

Appendix VIII: Comments from the Forest Service	105
Appendix IX: GAO Contact and Staff Acknowledgments	106

Related Products	107
Grazing Reports	107
User Fee Reports	109

Tables	
Table 1: Extent of Grazing in Fiscal Year 2004 on BLM and Forest Service Lands, Acres and AUMs	15
Table 2: Extent of Grazing in Fiscal Year 2004 on Other Agencies' Lands, Acres and AUMs	17
Table 3: Expenditures by BLM and the Forest Service for Direct, Indirect, and Range Improvement Grazing Activities, Fiscal Year 2004	21
Table 4: Estimated Expenditures by the National Park Service, U.S. Fish and Wildlife Service, Reclamation, DOE, and DOD on Grazing Activities, Fiscal Year 2004	25
Table 5: Expenditures for Grazing-Related Activities by Other Agencies on Federal Lands, Fiscal Year 2004	27
Table 6: BLM and Forest Service Grazing Receipts, Fiscal Year 2004	31
Table 7: National Park Service, U.S. Fish and Wildlife Service, Reclamation, DOE, and DOD Services Grazing Receipts, Fiscal Year 2004	34
Table 8: Fees Charged by Federal Agencies, State Land Agencies, and Private Ranchers, 2004	39
Table 9: Fees Charged by Private Ranchers and State Land Agencies in 2004	45
Table 10: BLM Data on Acres and AUMs, by Field Office for Fiscal Year 2004	68
Table 11: Forest Service Data on Acres and AUMs, by Forest and Grassland, Grazing Year 2004	72
Table 12: Number of BLM Permits by Size, Fiscal Year 2004	76
Table 13: Number of Forest Service Cattle Permits by Size, Grazing Year 2004	77
Table 14: Number of Forest Service Sheep Permits by Size, Grazing Year 2004	77
Table 15: Number of Cattle and Calf Operations and Percent of Inventory, United States, 2004	78
Table 16: Number of Beef Cow Operations and Percent of Inventory, United States, 2004	78

Table 17: PRIA Formula Data for 1979 through 2004 and Fee Results for 1980 through 2005	83
Table 18: Information on State Lands Used for Grazing, Revenues, and Fee-Setting Approach in 17 Western States, Fiscal Year 2004	94

Figures

Figure 1: Location of Federal Lands, by Agency	9
Figure 2: Grazing Fee BLM and the Forest Service Charged, 1980 to 2005	48
Figure 3: Unconstrained Formula Results and PRIA Grazing Fee Compared with Fees Charged on Private Lands	81
Figure 4: Value of PRIA Grazing Formula Components, 1979 through 2004	82

Abbreviations

AUM	Animal unit month
BCPI	Beef Cattle Price Index
BLM	Bureau of Land Management
DOD	Department of Defense
DOE	Department of Energy
FLPMA	Federal Land Policy and Management Act
FVI	Forage Value Index
GAO	Government Accountability Office
IOAA	Independent Offices Appropriation Act
NMFS	National Marine Fisheries Service
OMB	Office of Management and Budget
PPI	Prices Paid Index
PRIA	Public Rangelands Improvement Act
USDA	Department of Agriculture
USGS	U.S. Geological Survey

This is a work of the U.S. government and is not subject to copyright protection in the United States. It may be reproduced and distributed in its entirety without further permission from GAO. However, because this work may contain copyrighted images or other material, permission from the copyright holder may be necessary if you wish to reproduce this material separately.



GAO

Accountability • Integrity • Reliability

United States Government Accountability Office
Washington, D.C. 20548

September 30, 2005

Congressional Requesters:

Since the early 1900s, the federal government has required ranchers to pay a fee for grazing their livestock on millions of acres of federal land located primarily in western states. On many federal lands, if these ranchers comply with permit or lease conditions, they may be able to renew their permits or leases indefinitely, effectively adding forage, and hence value, to their operations.¹ Over the years, this arrangement has spurred controversy across a range of issues. Advocates of grazing on federal lands contend that grazing is a productive use of these lands and supports local economic development. Advocates also believe that the fee charged is fair, allows ranchers to stay in business, and provides stability to small rural communities. Opponents argue that grazing damages public resources, such as wildlife habitat, threatened and endangered species, and water quality. Opponents also argue that federal expenditures for grazing are too high and that fees charged for grazing are far too low, thereby contributing to increased grazing and deterioration of range conditions.

Ten federal agencies have programs to allow private ranchers to graze livestock on portions of the lands they manage: the Department of the Interior's (Interior) Bureau of Land Management (BLM), National Park Service, U.S. Fish and Wildlife Service, and Bureau of Reclamation (Reclamation); the U.S. Department of Agriculture's (USDA) Forest Service; the Department of Energy (DOE); and the Department of Defense's

¹Agencies use different arrangements to allow grazing on their lands. The Bureau of Land Management (BLM) both permits and leases land for grazing, depending on the legal designation of the land being grazed. Similarly, the Bureau of Reclamation also issues permits and leases for grazing on project lands. The Forest Service, National Park Service, and Fish and Wildlife Service permit grazing on their lands. The Department of Defense services lease their lands for grazing. BLM manages grazing permits on lands withdrawn from the public domain for use by the Department of Energy.

(DOD) Army, Army Corps of Engineers (Corps), Air Force, and Navy.² In general, agencies manage their grazing programs by establishing permit or lease conditions, monitoring livestock numbers and resource conditions, planning and overseeing projects to improve rangeland, and working with ranchers and local communities. While federal lands in the eastern states are also used for grazing, grazing occurs primarily on the agencies' lands located in 17 western states.³ Other federal agencies, such as USDA's Wildlife Services and the Department of Justice (Justice), do not have grazing programs but do conduct activities that support these programs. For example, Justice provides legal services to federal agencies, including litigation of federal grazing lawsuits.

Grazing fees are set in several ways. The fee charged for grazing on BLM and Forest Service lands is set using a formula first called for under the Public Rangelands Improvement Act (PRIA) of 1978. The formula, which expired in 1985 but was continued in 1986 by Executive Order 12548,⁴ results in a price per animal unit month (AUM)—that is, the amount of forage (vegetation such as grass and shrubs) that a cow and her calf eat in a month (or one bull, one steer, one horse, or five sheep).⁵ Fees can be specifically set by legislation, or agencies are authorized, under certain circumstances, to charge user fees under the Independent Offices Appropriation Act (IOAA). Office of Management and Budget (OMB)

²While the Army Corps of Engineers is an agency within the Army, we consider it as a separate agency for the purposes of this report. The Bureau of Indian Affairs helps Native Americans to manage grazing on tribal lands. While private ranchers can lease these lands for grazing at a fee, the lands are tribal lands and therefore are not included in this discussion of grazing on federal lands.

³Generally, there are 17 states, including the Great Plains states, considered to be western: Arizona, California, Colorado, Idaho, Kansas, Montana, Nebraska, New Mexico, Nevada, North Dakota, Oklahoma, Oregon, South Dakota, Texas, Utah, Washington, and Wyoming. However, depending on the situation, western states can be grouped and counted differently. BLM primarily manages grazing in 11 western states, including Arizona, California, Colorado, Idaho, Montana, New Mexico, Nevada, Oregon, Utah, Washington, and Wyoming. The Forest Service manages grazing for its forests in 16 western states, excluding Texas, under the range management subchapter of the Federal Lands Policy and Management Act of 1976 and the Public Rangelands Improvement Act of 1978, and grazing on national grasslands.

⁴Exec. Order No. 12548 (Feb. 14, 1986).

⁵While BLM uses the term AUM as a unit for purposes of charging fees, the Forest Service uses the term head month. The two units are calculated the same way. We will use the term AUM in this report to refer to both AUM and head month. Of the other agencies, some charge by AUM while others charge a flat fee or by acre.

Circular A-25, which further interprets IOAA, states that user fees can be established to recover the full cost of managing a program or to seek a fair market value—that is, the price set through competitive bids or market prices. When fees are set through competitive bidding, they achieve a fair market value—that is, the price that a willing and knowledgeable buyer pays and a willing and knowledgeable seller accepts. Competitive bidding usually includes the use of either sealed bids or public auction, advertising the permit or lease, and awarding it to the highest bidder. In lieu of competition, fees can be set to achieve market value based on an estimate or appraisal of comparable properties.

Changes in the livestock industry, as well as continued disagreement between advocates and opponents of grazing have, over the last 2 decades, resulted in several efforts to reform federal grazing fees for BLM and Forest Service lands. In 1986 and 1992, the two agencies studied alternative approaches to value grazing on federal rangelands and the fee charged. In 1994, the Administration considered administrative changes to the fee and range management regulations. In the late 1990s, the Senate passed legislation to reform the fee to reflect beef production from federal lands, but Congress ultimately did not enact this legislation. In 2003, attention turned to buyouts of federal grazing permits and leases in addition to grazing fees. Because of changes in the livestock industry—increasing conflict with other users of federal land, fluctuating prices of beef, and difficulty finding new owners for ranches—some ranchers have expressed support for the idea of a buyout. Others remain opposed.

In this context, you asked us to determine for 2004 the (1) extent of grazing on, and program purposes for, lands managed by the 10 federal agencies in the fiscal year; (2) amount spent in the fiscal year by these agencies, and other federal agencies that have grazing-related activities, to manage livestock grazing on public lands; (3) total receipts collected during the fiscal year for grazing privileges by the 10 federal agencies with grazing programs, and the amounts disbursed to counties, states, or the federal government; and (4) fees charged by the 10 federal agencies, western states, and private ranchers, and the reasons for any differences among the

fees.⁶ In considering agencies' expenditures and receipts, it is important to note that we conducted a budgetary evaluation; that is, we examined the effects of grazing programs on the U.S. Treasury and the federal budget and did not analyze economic costs and benefits, which would involve a broad set of trade-offs—some of which cannot be quantified—made by individuals, the public, and the federal government. (See app. II for a discussion of such factors.)

To respond to these questions, we obtained agencies' data on acres and AUMs for their grazing programs,⁷ as well as expenditures, receipts, disbursements, and fees.⁸ If an agency had a central data information system, we obtained the data from this system and determined, through interviews, system tests, and file reviews, as appropriate, the reliability of the data and whether the agencies have sufficient internal controls over the fund information in the systems. If an agency did not centrally track the needed data, we developed a data collection instrument for the agency's field unit managers to complete. We relied on data reported by the agencies. To assess whether the various types of data were sufficiently reliable for use in this report, as well as to check key internal controls over grazing receipts, we visited several agencies' field offices to review their grazing programs, data systems, and a selection of grazing files to verify the billing information; and we interviewed officials about key steps in the processes for issuing grazing permits and leases and billing for and collecting fees. We reviewed all the files at agencies with smaller grazing programs (those with up to 25 permits or leases at an office) and selected 10 percent of files at the two agencies that had large grazing programs (250

⁶Data on acres and AUMs are provided for fiscal years, except for the Forest Service, which reported these data by grazing year. The grazing year extends from March through February. Data on expenditures and receipts are reported by fiscal year, while fee data are reported differently depending on the agency. Specifically, BLM and Forest Service fees are reported by grazing year, the other federal agencies' fees are reported by fiscal year, state fees are reported primarily by fiscal year, and private fees and some state fees are reported by calendar year.

⁷While the majority of grazing is described according to AUMs and many agencies can calculate the amount of AUMs in their permits and leases, some of the agencies' field offices do not use AUMs as a convention to measure grazing. These offices use other measures to determine the amount of grazing that is occurring, for example, the amount of forage that remains. About five national parks, one Air Force base, and two Corps districts did not provide information on AUMs.

⁸The discussion does not include Alaska, which is treated differently in grazing law. See 43 U.S.C. § 316.

and 500 allotment files per office). While we gathered and reviewed expenditure data from the agencies, we did not validate the data or the accounting systems that produced them. To understand the differences among fees and approaches to setting fees, we interviewed a range of experts from Colorado State University, New Mexico State University, Oregon State University, and the University of Montana, as well as the Society for Range Management. See appendix I for a detailed discussion of our methodology. We conducted our review between August 2004 and July 2005 in accordance with generally accepted government auditing standards.

Results in Brief

The 10 federal agencies managed more than 22.6 million AUMs on about 235 million acres of federal lands for private grazing and land management in fiscal year 2004. Of this total, BLM and the Forest Service managed almost 21.9 million AUMs on almost 231 million acres, or more than 98 percent of the federal lands used for grazing. The remaining 8 agencies managed almost 794,000 AUMs on more than 4 million acres. While the agencies' grazing programs are similar in that they offer private ranchers access to federal lands and forage for their livestock, the agencies manage their grazing programs under different authorities and for different purposes. For BLM lands and western Forest Service lands, grazing is considered a principal or major program, while other agencies generally use grazing as a management tool to achieve their land management goals. For example, the U.S. Fish and Wildlife Service uses grazing to reduce some grasses and thereby allow other grasses to flourish that are favorable to particular types of birds. Similarly, some of the DOD services use livestock to "cut" their grass.

In fiscal year 2004, federal agencies, both those that have grazing programs and those that have activities to support grazing, spent a total of at least \$144.3 million. The 10 federal agencies with grazing programs spent at least \$135.9 million, of which BLM and the Forest Service spent the majority—about \$132.5 million. The 8 remaining agencies spent at least \$3.4 million, but not all of them could estimate their expenditures because they do not conduct grazing as a major activity and therefore do not track expenditures specifically for grazing. The 10 agencies spent funds on activities that directly supported grazing, such as managing permits and leases, managing grazing allotments, assessing the resource conditions of these allotments, and implementing projects to improve the allotments, such as building fences and developing water projects. They also spent funds on activities that indirectly supported grazing, such as management, budget, personnel,

and other activities. In addition to these 10 agencies' expenditures, other federal agencies that do not have grazing programs spent at least \$8.4 million to support grazing on public lands; some do not know the amount they spent because they do not distinguish between work done on public and private lands. For example, USDA's Wildlife Services removes predatory or nuisance wildlife that threaten livestock on both public and private lands; the agency estimated that it spent more than \$5 million in fiscal year 2004 on its activities on public lands. In the same year, Justice, which provides legal services to federal agencies including services for litigation related to grazing on public land, estimated that it spent about \$159,000 on grazing lawsuits. Other agencies, such as the Environmental Protection Agency and USDA's Natural Resources Conservation Service, conduct water quality projects and range improvement work that are related to grazing, but the agencies cannot separate expenditures for public lands from those on private lands.

The grazing permits and leases the 10 federal agencies manage generated a total of about \$21 million from fees charged in fiscal year 2004—or less than one-sixth of the expenditures to manage grazing. From that amount, the agencies distributed almost \$5.7 million to states and counties in which grazing occurred, deposited almost \$3.8 million in the Treasury as miscellaneous receipts, and deposited at least \$11.7 million in separate Treasury accounts for the agencies' use. The amounts distributed by each agency vary, depending on the agencies' differing authorities. For example, of the \$11.7 million deposited in the separate Treasury accounts, BLM and the Forest Service deposited \$8.8 million into their range improvement funds. The majority of grazing receipts—more than \$17.5 million—came from BLM and Forest Service permits and leases, while more than \$3.7 million was generated from the remaining agencies. In addition to cash receipts, the DOD services also received almost \$1.4 million in services, such as maintaining fences, that offset grazing fees charged to their lessees.

Fees charged in 2004 by the 10 federal agencies, as well as state land agencies and private ranchers, vary widely, depending on the purpose for which the fees were established and the approach used to set the fees. The fee BLM and the Forest Service charge for grazing—which was \$2.36 per AUM for BLM and \$2.41 per AUM for the Forest Service in 1980, when the fee based on the formula enacted by PRIA was first charged, and \$1.43 per AUM in 2004—is established by formula to account for livestock industry prices and to support ranchers and the western livestock industry. It is therefore generally lower than the fees charged by the other federal agencies, states, and private ranchers. The other agencies generally

establish their fees based on the market value of the forage, and as a result charged fees ranging from \$0.29 to more than \$112 per AUM in fiscal year 2004, depending on the location, range condition, and accompanying in-kind services. The state land agencies in 17 western states charged fees that ranged from \$1.35 to \$80 per AUM in fiscal year 2004, while the average fee private ranchers charged ranged from \$8 per AUM in Arizona and Oklahoma to \$23 per AUM in Nebraska. The complex formula used to calculate the BLM and Forest Service fee for grazing on their lands incorporates factors that consider ranchers' ability to pay; the purpose of the fee is therefore not primarily to recover the agencies' expenditures or to capture the fair market value of forage. These factors that adjust the fee resulted in a difference of almost \$115 million between grazing receipts and agencies' expenditures on grazing activities in fiscal year 2004. BLM and the Forest Service would have had to charge \$7.64 per AUM and \$12.26 per AUM, respectively, to recover these expenditures in 2004. These adjustment factors also resulted in the fee decreasing by 40 percent from 1980 to 2004 for grazing on BLM and Forest Service lands, while fees charged by private ranchers increased 78 percent over the same period. Although differences in the quality of resources, the level of services provided, and legal requirements complicate the comparison of private and federal lands, and competitive methods may be administratively expensive, the approaches other federal agencies, states, and private ranchers use could provide alternative approaches for setting fees. These approaches could close the gap in expenditures and receipts or more closely align BLM and Forest Service fees with market prices; however, the purpose of the grazing fee and any policy trade-offs are, ultimately, for the Congress to determine.

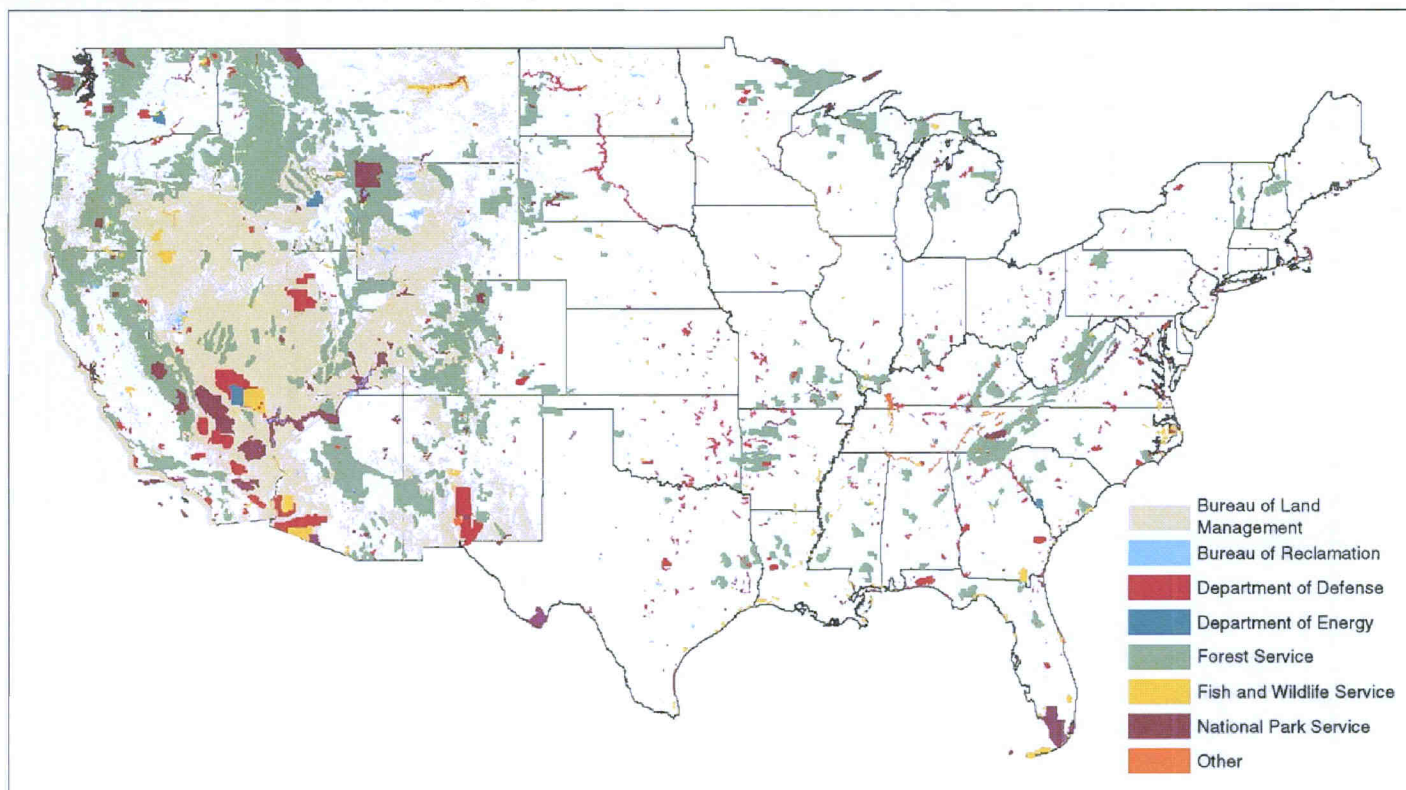
In responding to a draft of this report, Interior and the Forest Service provided written comments. The agencies neither agreed nor disagreed with the findings. Interior stated that the report recognized that differences in resource conditions and legal requirements can cause grazing fees to vary. The Forest Service stated that the report accurately described the purpose of the grazing fee charged by BLM and the Forest Service. DOD and DOE provided technical comments, which we incorporated as appropriate. The departments of Commerce and of Justice responded that they did not have comments. Interior's and the Forest Service's comments are included in appendixes VII and VIII, respectively.

Background

The federal government manages more than 680 million acres of land in the United States, including lands in national forests, grasslands, parks, refuges, reservoirs, and military bases and installations. Of the total federal lands, BLM and the Forest Service manage almost 450 million acres for multiple uses, including timber harvest, recreation, grazing, minerals, water supply and quality, and wildlife habitat. BLM's 12 state offices manage more than 260 million acres in 12 western states, including 82 million acres in Alaska, while the Forest Service's 123 administrative offices manage more than 190 million acres across the nation.⁹ As shown in figure 1, the majority of federal lands are located in the western half of the country.

⁹While the Forest Service has 155 proclaimed national forests and 20 grasslands, it has combined them into 123 administrative offices for management purposes.

Figure 1: Location of Federal Lands, by Agency



Source: U.S. Geological Survey's National Atlas Web site (data); GAO (analysis).

The remaining lands are managed by the following agencies for different purposes:

- Interior's National Park Service manages more than 350 national parks, monuments, seashores, battlefields, preserves, and other areas on 84 million acres of federal land; the U.S. Fish and Wildlife Service manages more than 540 national wildlife refuges and 37 large multiple-unit wetland management districts on more than 96 million acres of land; and Reclamation manages about 8.5 million acres of land associated with water projects in 17 western states.

-
- DOE manages almost 2.4 million acres of land making it the fourth largest federal land owner after Interior, USDA, and DOD. It operates 30 major facilities on land holdings in 34 states. The buffer zones surrounding many of these facilities consist of forests and rangelands.
 - DOD has numerous Army, Air Force, and Navy installations on 29 million acres of land in many states, while the Corps, like Reclamation, manages 12.7 million acres of land associated with water projects in many states.
-

Livestock Grazing in the United States

Most rangelands—primarily grasslands and shrublands—used to raise livestock in the United States are privately owned, and as a result, only a portion of livestock is raised on federal land.¹⁰ In 2004, the livestock industry had almost 95 million cattle and 989,460 cattle and calf operations, which include cattle raised for beef as well as milk.¹¹ Regionally, the eastern states had almost 590,000 cattle and calf operations, of which almost 440,500 were beef cow operations; the states in the Great Plains (Nebraska, Kansas, Oklahoma, North and South Dakota, and Texas) had 292,300 cattle and calf operations with 253,000 beef cow operations; and the 11 western states had more than 106,000 cattle and calf operations with about 80,400 beef cow operations. In contrast, the number of livestock operations with BLM and Forest Service grazing permits and leases for cattle, sheep, and other livestock totaled more than 23,000. Livestock operations in the West differ from those in the eastern United States. In the West, livestock operations involve larger areas of land, and ranchers depend on a mix of private and federal lands to graze cattle seasonally—in the summer and fall they use federal lands to graze their livestock while they grow hay crops for the winter on their private lands. In some parts of the West, primarily the Southwest, grazing occurs year-round on federal lands. In the East, sufficient rain allows grazing to occur on smaller pastures, in some places, year-round.

¹⁰Rangelands are lands on which the indigenous vegetation is predominantly grasses, grass-like plants, forbs (herbs), or shrubs and is managed as a natural ecosystem. Rangelands include natural grasslands, savannas, many deserts, tundras, alpine communities, marshes, and meadows. They differ from pastureland in that they are not periodically planted or treated through tilling, fertilization, mowing, weed control, or irrigation. Not all rangelands are used for grazing purposes.

¹¹In the same year, the industry had about 6 million sheep and 67,160 sheep operations, which raise sheep for both meat and wool.

Grazing on Federal Lands

The country's rangelands have been used to graze domestic livestock since the United States was settled, and the federal government has managed grazing on federal lands for more than 100 years. During western expansion, settlement typically occurred along streams and rivers, where the soil is richer, vegetation denser, and water more available. Lands that remained for the federal government to manage after western expansion were lands that settlers did not want or could not easily settle; the lands are often drier, less productive, and located at higher elevations or farther from water. As the West was settled throughout the late 1800s, conflict among different users of the rangelands increased, as did degradation of these lands. As a result, in 1897, the federal government began managing livestock grazing in the nation's forest reserves; in 1906, the Forest Service started charging a fee for grazing on these reserves.

The Forest Service managed grazing under its general authorities until 1950, when Congress enacted the Granger-Thye Act, authorizing the Secretary of Agriculture to issue grazing permits on national forest lands and other lands under the department's administration. In addition to national forest lands on which grazing is allowed in the 16 western states, the Forest Service manages national grasslands in the western states and forest lands in the eastern states for grazing. The federal government started purchasing privately owned land in 1911 as necessary for regulating the flow of navigable streams, creating national forests in the East. The national grasslands, which are primarily located in Colorado, Kansas, New Mexico, and North and South Dakota, were purchased by the federal government under a land utilization program started in the 1930s. Originally, the program purchased submarginal lands to provide emergency relief to farmers whose lands were failing. It evolved into a program designed to transfer land to its most suitable use, culminating in the Bankhead-Jones Farm Tenant Act of 1937. In 1954, the Secretary of Agriculture transferred the responsibility for program administration to the Forest Service and in 1960 designated almost 3.8 million acres of lands in the program as national grasslands.

To stop continued degradation caused by overgrazing of the remaining public lands, among other purposes, the Congress passed the Taylor Grazing Act in 1934. Under the act, the predecessor to BLM—the Grazing Service—was created, and control over grazing on public lands was established. The Taylor Grazing Act authorized the establishment of grazing districts from public lands that were considered to be chiefly valuable for grazing and raising forage crops and the leasing of other public lands that were located outside grazing districts. The act also provided for

the issuance of permits and leases for these lands and set forth requirements for the distribution of funds received from grazing. Additional laws affecting grazing on both BLM and western Forest Service lands were enacted in the 1970s. The Federal Land Policy and Management Act of 1976 (FLPMA) limited the length of permits and leases to 10 years and allowed shorter terms, authorized terms and conditions to be placed on a permit or lease, and allowed seasonal limits on grazing. In 1978, PRIA required BLM and the Forest Service to inventory and manage their lands in western states.

To provide access to grazing, both BLM and the Forest Service divide their rangelands into allotments, which can vary in size from a few acres to hundreds of thousands of acres of land. Because of the land ownership patterns that occurred when the lands were settled, the allotments can be adjacent to private lands, or they can be intermingled with private lands. Under its authorities, BLM permits grazing in allotments within its grazing districts and leases lands outside grazing districts. The Forest Service, which does not have grazing districts, uses permits to authorize grazing in its allotments. To be eligible for a permit or lease on one of BLM's allotments, ranchers, among other things, are required to own or control land or water, called a base property.¹² Under Forest Service guidance, permits are issued to purchasers of permitted livestock or base property.

The other federal agencies that manage grazing do not have the same grazing authorities, processes, or fees as BLM and the Forest Service. Each agency manages its grazing for different purposes and under different authorities. For example, the U.S. Fish and Wildlife Service permits grazing on a year-to-year basis, depending on a refuge's land management goals, while the National Park Service permits grazing for a longer period but can choose to not renew a permit if certain conditions change, including damage to park resources, limitations to interpretive experiences, or impairment of park facilities.

¹²A base property is property that is capable of serving as a base of operation for livestock use of public lands within a grazing district or contiguous land, or, when no applicant owns or controls contiguous land, noncontiguous land that is capable of being used in conjunction with a livestock operation that would use public lands outside a grazing district. A water base is water that is suitable for consumption by livestock and is available and accessible to the authorized livestock when the public lands are used for livestock grazing.

User Fees for Grazing on Federal Lands

Federal grazing fees are considered as user fees. Without statutory authority to charge a fee and retain the proceeds, a federal agency may not charge a fee to defray the cost of services or resources it provides. Congress has provided some agencies with specific authority to charge a user fee and retain and use the proceeds. If an agency does not have specific authority, the IOAA provides general authority for an agency to impose a fee if certain conditions are met. However, even if the user fee applies, an agency may not retain the proceeds from a user fee without specific authority to that effect, but must credit the collections to the general fund of the Treasury as miscellaneous receipts. OMB *Circular A-25* provides guidance to agencies regarding their imposition of user fees under the IOAA and other statutes. Under the circular, federal agencies that do not have specific authority to impose a fee are to charge user fees pursuant to the IOAA when an individual or a group receives benefits—such as those that provide business stability or respond to an individual or a group's request—that are greater than those that the general public enjoys. Increasingly since the 1980s, to relieve pressure on taxpayers for increasing general appropriations for the federal government, user fees have been levied to help pay for federal services and resources that benefit specific groups of users. User fees differ from broad-based taxes in that they attempt to recover some amount of the government expenditures made for a specific program. For example, Congress enacted laws to increase the use of recreation fees for access to federal parks, forests, and BLM lands in the 1990s.

While agencies are generally to deposit funds they receive in the general fund of the Treasury under the Miscellaneous Receipts Act, some federal agencies have specific legislative authority to distribute funds to states and counties or to deposit funds into special accounts in the Treasury for the agency's or program's use. Generally, funds that are deposited into the Treasury as miscellaneous receipts are deposited in the general fund where they are then available to be appropriated as Congress may see fit. Funds that are deposited into special accounts in the Treasury are dedicated for specific purposes. The special accounts may be permanently appropriated or further congressional action may be needed to make the funds available. Some agencies are also authorized to retain funds for credit to their appropriations.

Grazing Occurs on About 235 Million Acres of Federal Lands for a Variety of Purposes

In fiscal year 2004, BLM, the Forest Service, the National Park Service, U.S. Fish and Wildlife Service, Reclamation, DOE, the Army, the Corps, Air Force, and Navy allowed more than 22.6 million AUMs of grazing on about 235 million acres of the lands they manage.¹³ BLM and the Forest Service managed most of this grazing activity, allowing almost 21.9 million AUMs on almost 231 million acres, or more than 98 percent of the grazed lands. The remaining eight agencies allowed almost 794,000 AUMs of grazing on more than 4 million acres. While the agencies' grazing programs are similar in that they offer private ranchers access to federal lands and vegetation for their livestock, agencies manage their grazing programs under different authorities and for different purposes.

BLM and the Forest Service Managed About 230.6 Million Acres for About 21.9 Million AUMs of Private Livestock Grazing in Fiscal Year 2004 to Foster Economic Development

As table 1 shows, in fiscal year 2004, BLM and the Forest Service approved a total of almost 21.9 million AUMs for grazing on more than 230.6 million acres—BLM approved almost 12.7 million AUMs on more than 137.7 million acres, and the Forest Service approved almost 9.2 million AUMs on more than 92.9 million acres. Ranchers were billed for and used fewer AUMs—a total of almost 13.7 million AUMs—primarily because of the continuing drought in the western and southwestern states, according to agency officials. While BLM maintains a list of historical AUMs—or grazing privileges that have been reduced from historical amounts and are not available to be used—these numbers do not affect the totals.

¹³The Forest Service data on the extent of grazing is for the grazing year March 2004 to February 2005; the remaining agencies provided grazing data for fiscal year 2004.

Table 1: Extent of Grazing in Fiscal Year 2004 on BLM and Forest Service Lands, Acres and AUMs

Agency	Acres	AUMs approved	AUMs billed
BLM state offices^a			
Arizona	7,955,000	660,000	354,000
California	5,672,000	421,000	196,000
Colorado	6,593,000	655,000	311,000
Idaho	10,756,000	1,352,000	899,000
Montana	7,839,000	1,366,000	1,178,000
New Mexico	11,533,000	1,869,000	1,134,000
Nevada	39,331,000	2,129,000	1,075,000
Oregon/Washington	12,786,000	1,058,000	740,000
Utah	19,321,000	1,229,000	553,000
Wyoming	15,917,000	1,951,000	1,193,000
Subtotal	137,702,000^c	12,691,000	7,634,000
Forest Service^b			
Eastern	75,000	35,000	34,000
Intermountain	24,107,000	2,979,000	2,164,000
Northern	8,268,000	1,095,000	539,000
Pacific Northwest	11,408,000	550,000	398,000
Pacific Southwest	12,353,000	486,000	374,000
Rocky Mountain	17,129,000	1,927,000	1,564,000
Southern	675,000	40,000	19,000
Southwestern	18,908,000	2,052,000	959,000
Subtotal	92,924,000	9,165,000	6,051,000
Total	230,626,000	21,856,000	13,685,000

Source: BLM and Forest Service (data); GAO (analysis).

Note: Numbers may not total due to rounding.

^aBLM has 12 state offices, 2 of which—the Eastern Office and the Alaska Office—are not included here. BLM manages grazing under PRIA in the 11 states listed, which are managed by the 10 state offices.

^bThe Forest Service is organized by regions, not states.

^cBLM authorizes grazing on approximately 160 million acres of land, but all the land may not be used for grazing in any given year. The number in the table represents BLM's best estimate of the lands on which grazing was billed.

As table 1 shows, BLM's and the Forest Service's responsibilities for managing grazing varied considerably by state office or Forest Service region. The BLM Nevada state office had the most grazing in fiscal year 2004, in terms of both acres and approved AUMs, while Montana had the

most grazing in terms of billed AUMs; the California state office had the least grazing, in terms of both acres and approved AUMs. For the Forest Service, the Intermountain Region, which includes Utah, Nevada, and portions of Idaho and Wyoming, had the most grazing, while the Eastern and Southern regions had the smallest amounts of grazing. Appendix III contains the detailed extent of grazing for each BLM field office within each state office and Forest Service administrative office.

Grazing is allowed on BLM and Forest Service lands for the purpose of fostering economic development for private ranchers and ranching communities by providing ranchers access to additional forage. Particularly in the western states, where the agencies manage anywhere from 30 to almost 85 percent of the land, access to federal forage increases the total forage available to ranchers, enabling them to increase the number of livestock they can support and sell. Under FLPMA, the Taylor Grazing Act, and the Granger-Thye Act, BLM's and the Forest Service's permits and leases are set for not more than 10 years and can be renewed without competition at the end of that period, which gives the permittee or lessee a priority position against others for receiving a permit or lease—a position called “preference.” While ranchers have preference, they do not obtain title to federal lands through their grazing permits and leases, nor do they have exclusive access to the federal lands, which are managed for multiple purposes or uses.

**The Remaining Eight
Federal Agencies Managed
About 794,000 AUMs of
Grazing on More Than 4
Million Acres in Fiscal Year
2004 to Help Them Achieve
Land Management
Objectives**

In fiscal year 2004, the National Park Service, Reclamation, U.S. Fish and Wildlife Service, DOE, and DOD services managed about 794,000 AUMs of grazing on more than 4 million acres of land. Table 2 shows the extent of grazing.

Table 2: Extent of Grazing in Fiscal Year 2004 on Other Agencies' Lands, Acres and AUMs

Agency	Number of parks, refuges, projects, and installations	Acres ^a	AUMs approved	AUMs billed
Interior				
National Park Service	31 parks	1,580,000 ^b	71,000	63,000
Reclamation	36 projects	737,000 ^c	91,000	77,000
U.S. Fish and Wildlife Service	94 refuges	740,000 ^b	199,000	199,000
Subtotal	161	3,054,000	361,000	339,000
DOE	1 site	291,000	13,000	6,000
DOD				
Air Force	12 installations	277,000	102,000	89,000
Army	20 installations	201,000	126,000	122,000
Corps	64 projects	169,000	162,000	161,000
Navy	8 installations	16,000	30,000	28,000
Subtotal	104	663,000	420,000	399,000
Total	266	4,008,000	794,000	744,000

Sources: Agencies (data); GAO (analysis).

Note: Numbers may not total due to rounding.

^aThe rate of AUMs per acre can vary, depending on the productivity of the land and does not necessarily show overuse or underuse of land.

^bThis total does not include about 2.7 million acres of National Park Service land in Alaska that has about 17,000 AUMs approved for grazing or almost 795,000 acres of U.S. Fish and Wildlife Service land in Alaska that has about 12,000 AUMs approved for grazing. These lands are approved for grazing of reindeer, and no fees are charged.

^cThis total includes almost 499,000 acres of Reclamation land with about 47,000 AUMs approved and 41,000 billed AUMs that are managed by other agencies. Of the 499,000 acres, BLM managed almost 172,000 acres and the U.S. Fish and Wildlife Service managed almost 66,000 acres.

As table 2 shows, the extent of grazing on the eight agencies' lands varied considerably in fiscal year 2004, with the National Park Service managing grazing on about 1,580,000 acres, while the Navy managed almost 16,000 acres. In terms of approved AUMs, the U.S. Fish and Wildlife Service managed the most—more than 199,000 AUMs—while DOE allowed about 13,000 AUMs.

The eight agencies presented in table 2 manage or allow grazing for different purposes, as the following discussion details:

National Park Service. The agency is authorized to allow grazing within any national park, monument, or reservation as long as such use is not detrimental to the primary purpose for creating the park, monument, or

reservation. Agency regulations prohibit grazing except as (1) specifically authorized by statute, (2) required under a reservation of use rights arising from the acquisition of a tract of land, (3) required in order to maintain a historic scene, or (4) conducted as an integral part of a recreational activity. For example, in Virginia and North Carolina, the agency allows grazing at Blue Ridge National Parkway—about 5,000 AUMs of cattle on more than 2,000 acres—to maintain a historic scene. In contrast, at the Appomattox Court House National Historical Park, the agency allowed grazing on almost 200 acres to maintain a desirable grass level. Grazing is managed as a special park use, requiring a permit, lease, concession, contract, or commercial use authorization. Each park superintendent approves or disapproves requests for special park uses, such as grazing, and can impose conditions to protect park resources and values and visitors and the visitors' experience. In fiscal year 2004, the National Park Service reported that grazing was permitted to occur at 31 of its parks, with Glen Canyon National Recreation Area, in Utah and Arizona, accounting for the most acres—almost 666,000—and Point Reyes National Seashore, in California, accounting for the most AUMs—about 18,500 AUMs on about 24,000 acres.

U.S. Fish and Wildlife Service. The National Wildlife Refuge System Administration Act of 1966 authorizes various uses of U.S. Fish and Wildlife Service lands, including grazing, as long as the agency determines that such use is compatible with the major purposes for which the refuge was established. The agency uses grazing as a tool to manage habitat. For example, in the Anahuac, McFaddin, and Texas Point National Wildlife Refuges, along the Texas Gulf Coast, the agency allowed livestock grazing from October to April, the cool season of the year, to encourage different types of marsh grasses, generate annuals, and increase vegetative diversity, thereby opening up additional habitat for foraging waterfowl. In fiscal year 2004, the U.S. Fish and Wildlife Service reported that livestock grazing occurred on 94 of its refuges and wetland management districts, ranging from 25 AUMs on 60 acres at Detroit Lakes Wetland Management District in Minnesota to about 21,500 AUMs on 450,000 acres at the Charles M. Russell National Wildlife Refuge in Montana.

Reclamation. Reclamation allows its lands to be used for incidental purposes, such as recreation and grazing, as long as such uses do not interfere with the operation of the dams or irrigation works associated with these projects. In general, Reclamation allows grazing on its project lands when asked to do so by users, such as ranchers who have had historical access to the lands or wildlife managers wanting to improve habitat. For

example, the Albuquerque Area Office allows grazing on more than 19,000 acres in the Brantley and Avalon Reservoirs project area, thereby allowing ranchers access to lands that they historically grazed. In fiscal year 2004, Reclamation reported that it permitted and leased lands for grazing at 36 of its facilities in 16 area offices, with the agency managing some of the permits and leases and other agencies, such as BLM, the U.S. Fish and Wildlife Service, or local and state agencies managing additional permits and leases under joint management agreements. For example, in central Washington state, BLM manages grazing on more than 8,000 acres of Reclamation land that is adjacent to BLM land in the Columbia Basin Project. In the same area, the Washington Department of Fish and Wildlife manages grazing on almost 18,000 acres of Reclamation land to improve vegetation and thereby enhance bird habitat. In total, in fiscal year 2004, Reclamation issued permits and leases for about 91,000 AUMs of grazing on almost 737,000 acres—almost 44,000 AUMs and about 238,000 acres under Reclamation's management and about 47,000 AUMs and about 499,000 acres managed by agreement with other agencies.

DOE. The department allows grazing on only one site, the Idaho National Laboratory. Under the Taylor Grazing Act, the Secretary of the Interior is authorized, by order and with the approval of the relevant department, to establish grazing districts of certain public domain lands that are not in national forests, parks, or monuments. In Idaho, Interior, with the agreement of DOE, issued such an order, and livestock grazing continues on approximately 50 percent of the Idaho National Laboratory site. BLM manages the land as part of its grazing program but is to follow the security and land access requirements set by DOE.

DOD. Under 10 U.S.C. § 2667, the Secretaries of the Army, Air Force, and Navy are authorized to lease property under their control that is not excess property, if it will promote national defense or be in the public interest. The military services use this authority to lease rangelands on military installations and bases for grazing, among other uses. For example, the Air Force leases to nearby ranchers land that forms a buffer around the Melrose Air Force Range at Cannon Air Force Base in New Mexico. The buffer consists of rangelands surrounding target areas used in training exercises and protects more developed areas from stray (unarmed) bombs. According to Air Force staff, leasing the land to ranchers does not hinder training exercises, but it does provide access to grazing for neighboring landowners and to maintain rangeland, by keeping grass low, to control fire. Similarly, Fort Hood in Texas allows grazing on lands used for armored vehicle training maneuvers. The Army determined that grazing cattle could

be compatible with training exercises, although uncertainty remains about the intensity of grazing that can be allowed, given the need to let vegetation recover from training exercises, and hence, reduce soil erosion into nearby streams and reservoirs. Like the Army, Air Force, and Navy, the Corps manages grazing on its lands under 10 U.S.C. § 2667. In fiscal year 2004, the DOD military services leased about 494,000 acres for grazing, and the Corps leased about 169,000 acres.

Federal Agencies Spent at Least \$144 Million on Grazing Activities, Although Some Agencies Do Not Track Expenditures for Grazing on Federal Lands

Federal agencies spent at least \$144.3 million in direct and indirect expenditures to support grazing activities on federal lands in fiscal year 2004. The 10 federal agencies spent at least \$135.9 million, of which the Forest Service and BLM spent the majority of funds, about \$132.5 million. The 8 remaining agencies spent at least \$3.4 million on their grazing programs, but not all of the agencies could estimate their expenditures because they do not conduct grazing as a major activity and therefore do not specifically track grazing expenditures. The 10 agencies spent funds on activities that directly supported grazing, such as managing permits and leases, monitoring resource conditions on grazing allotments, assuring permit and lease compliance, and implementing range improvements such as developing water sources and constructing fences. The agencies also spent funds on activities that indirectly supported grazing, such as management, budget, and personnel. In addition to these 10 agencies' expenditures, other federal agencies that do not have grazing programs spent at least \$8.4 million to support grazing on public lands. While some of these agencies could identify their expenditures related to grazing on public lands, not all agencies could do so because they do not distinguish between work done on public and private lands. These agencies spent funds on activities related to grazing, such as grazing litigation, threatened and endangered species consultations for grazing plans, and the removal of predatory or nuisance wildlife from grazing lands. Because some agencies do not track their grazing expenditures on public lands specifically, the expenditures presented are a conservative estimate of federal grazing expenditures; expenditures would most likely be higher if these agencies could provide estimates.

BLM and the Forest Service
Spent About \$132.5 Million
on Direct, Indirect, and
Range Improvement
Activities for Grazing
Programs in Fiscal Year
2004

BLM and the Forest Service spent about \$132.5 million to manage their grazing programs in fiscal year 2004—BLM spent more than \$58.3 million, and the Forest Service spent almost \$74.2 million. As shown in table 3, the agencies spent these funds on both direct, indirect, and range improvement activities. BLM has implemented a cost-management system that identifies direct and indirect expenditures and used it to identify its direct and indirect expenditures in fiscal year 2004. Unlike BLM, the Forest Service does not have a cost-management system, but rather reports expenditures for items in its budget, called budget line items.¹⁴ The agency uses its Foundation Financial Information System to centrally track and formally report expenditures. For fiscal year 2004, the Forest Service used expenditure reports for grazing and related line items, in addition to its WorkPlan system that shows its intended work plans for the fiscal year, to identify the amount of expenditures.¹⁵

Table 3: Expenditures by BLM and the Forest Service for Direct, Indirect, and Range Improvement Grazing Activities, Fiscal Year 2004

Dollars in millions		
Agency	Number of BLM field offices and Forest Service administrative offices allowing grazing	Expenditures
BLM		
Direct		\$27.9
Indirect		18.7
Range improvement funds (both direct and indirect)		11.7
Subtotal	107	\$58.3
Forest Service^a		

¹⁴According to a Forest Service financial management official, the agency has not implemented a cost-accounting system because it has been focused on improving the agency's financial statements, which we previously identified as having material control weaknesses.

¹⁵The Forest Service implemented a new work planning system, called WorkPlan, in fiscal year 2004. The system allows forests and districts to develop detailed plans, including personnel resources, vehicles, and other resources, needed for conducting work on individual projects. The plans are used to allocate budgets and are to be updated during the year to keep the plans current.

(Continued From Previous Page)

Dollars in millions

Agency	Number of BLM field offices and Forest Service administrative offices allowing grazing	Expenditures
Direct		58.0
Indirect		13.3
Range improvement funds (both direct and indirect)		2.9
Subtotal	99	\$74.2
Total	206	\$132.5

Source: BLM and Forest Service (data); GAO (analysis).

*The Forest Service estimated direct expenditures from the Forest Service grazing line item, its watershed and vegetation line item, and its General Management and other cost pools. Because the watershed and vegetation line item can be spent for other programs in addition to the grazing program, the Forest Service allocated a portion (11 percent) of these expenditures using WorkPlan, a tool used to estimate and plan fiscal year workloads by program. To estimate the expenditures from its General Management and other cost pools, the agency attributed a portion of the grazing line item equal to the amount of funds allocated to the pools and attributed a share of the watershed and vegetation line item equal to the allocated portion (11 percent) of funds in the pools.

In fiscal year 2004, the agencies generally included the same activities in reporting their expenditures. Both BLM and the Forest Service included managing grazing permits and leases, monitoring resource conditions on grazing allotments, conducting environmental assessments for allotments, and managing grazing fees as direct expenditures. Both agencies included expenditures that specifically related to grazing management, rather than broader range management expenditures, because grazing activities are distinct from more general rangeland management activities. According to agency officials, many range management activities need to be conducted whether or not grazing occurs. For example, monitoring rangeland conditions through vegetation surveys supports work that the agencies conduct to manage noxious weeds. While some noxious weeds may occur on federal lands as a result of livestock grazing, some can be transported by other means. Although both agencies spent funds on land management planning to support their specific grazing plans and activities, neither agency included land management planning expenditures. According to BLM and Forest Service officials, land management planning and environmental impact statements are important enough to be a separate direct expenditure from grazing and would continue to occur if the agencies no longer permitted or leased grazing activities on their lands. Furthermore, according to agency officials, land management planning encompasses all activities—including livestock grazing—conducted by BLM, at the field office level on public lands, or by the Forest Service, at the national forest level for all national forest system lands. Even if grazing

activities were not conducted, other range management activities, such as oil and gas leasing and off-road vehicle use, would still need to be planned and studied.

For indirect grazing activities in fiscal year 2004, BLM spent almost \$18.7 million, and the Forest Service spent an estimated \$13.3 million. Indirect activities are those that cannot be specifically attributed to grazing because they also benefit other resource programs. These include activities such as administrative activities, infrastructure, or technical support.¹⁶ One method of allocating indirect expenditures is to pool the activities and allocate the related expenditures across all the programs that use the activities. BLM allocated its indirect expenditures using its cost-management system. The system allocated expenditures for such activities as management, state office expenditures, and BLM office expenditures in fiscal year 2004. Because the Forest Service does not have a cost-accounting system, it allocates its budget according to potential indirect expenditures. The Forest Service has six cost pools, into which it allocates a percent of each of its budget line items for the fiscal year to be used to cover indirect expenditures during the year.¹⁷

BLM and the Forest Service also spent \$14.6 million on range improvement activities in fiscal year 2004. These funds are revenues from grazing fees charged in 2003 and deposited as receipts in the agencies' range improvement accounts. The agencies use the funds to pay for direct and indirect activities related to range improvement projects that include constructing fences, developing water sources such as tanks or impoundments, and seeding to improve vegetation and forage amounts. The expenditure of funds on these assets represents an investment in

¹⁶OMB defines those costs that can be considered indirect. We applied these definitions to the expenditures supplied by the agencies. OMB, *Managerial Cost Accounting Concepts and Standards for the Federal Government: Statement of Federal Financial Accounting Standards Number 4* (Washington, D.C.: July 31, 1995).

¹⁷The six cost pools are General Management, Public Communications, Ongoing Business Services, Common Services, Office of Worker's Compensation, and Unemployment Compensation Insurance. The General Management pool and some of the activities in the Common Services pool are considered direct or support rather than indirect costs. These are included in the estimate of direct expenditures.

infrastructure assets that are the property of the United States.¹⁸ Under federal financial management standards, both BLM and the Forest Service are working to identify the value of these assets, which is currently unknown.

**The Remaining Eight
Federal Agencies Spent at
Least \$3.4 Million on
Grazing Programs in Fiscal
Year 2004, but They Do Not
Track All Expenditures**

In fiscal year 2004, the National Park Service, U.S. Fish and Wildlife Service, Reclamation, DOE, and the DOD services spent at least \$3.4 million on their grazing programs, as shown in table 4. Because it arranges with BLM to manage its grazing program, DOE incurs only incidental expenditures related to grazing. Because the agencies use grazing as a tool to support other management goals, they do not specifically track grazing, and hence do not track direct or indirect grazing expenditures. For this reason, the expenditures are the best estimates of individuals who manage the grazing programs.

¹⁸In proposed regulations, BLM would allow cooperators (ranchers and others), subject to valid existing rights, to share title with the United States to permanent structural range improvements, such as fences, wells, and pipelines, where authorization is granted after February 6, 2004, in proportion to their contributions to the development and construction costs.

Table 4: Estimated Expenditures by the National Park Service, U.S. Fish and Wildlife Service, Reclamation, DOE, and DOD on Grazing Activities, Fiscal Year 2004

Agency	Number of parks, refuges, projects, and installations	Estimated expenditures ^a
Interior		
National Park Service	31 parks	\$410,000
Reclamation	36 projects	91,000
U.S. Fish and Wildlife Service	94 refuges	1,099,000 ^b
Subtotal	161	\$1,600,000
DOE	1 site	1,500
DOD		
Air Force	12 installations	377,000
Army	20 installations	717,000
Corps	64 projects	672,000
Navy	8 installations	39,000
Subtotal	104	\$1,805,000
Total	266	\$3,406,000

Source: Agencies (data); GAO (analysis).

Note: Numbers may not total due to rounding.

^aNot all offices provided an estimate.

^bThis total does not include \$9,000 of expenses at Yukon Delta National Wildlife Refuge in Alaska for operations approved for nonfederal use for grazing of reindeer; no fees are charged.

The field managers for these eight agencies identified the following activities associated with grazing on federal lands: fence installation and repair, cattle troughs, cattle guard installation, fertilizer, personnel, security, monitoring and inspections, control of invasive species and noxious weeds, and managing grazing leases. Generally, the estimates are low because they do not include all expenditures—including indirect expenditures—and several offices did not provide estimates.

Other Agencies Have
Grazing-Related Activities
and Expenditures of at
Least \$8.4 Million, but Some
Do Not Know Their
Expenditures for Grazing on
Federal Lands

In addition to the 10 federal agencies' expenditures, other federal agencies estimated that they spent \$8.4 million on activities that are related to grazing on federal lands. Agencies that have grazing-related activities include the following:

- several USDA agencies that provide research, insurance, resource management, and other agricultural services to farmers and ranchers on both federal and private lands;
- Justice, the Interior's Office of the Solicitor, and USDA's Office of General Counsel, which perform legal services for BLM and the Forest Service;
- the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service, which consult with agencies on threatened and endangered species;
- the U.S. Geological Survey (USGS), which provides research on resource conditions on rangelands; and
- the Environmental Protection Agency, which provides grants to improve watersheds that may include areas with resources degraded by grazing.

The agencies estimated, when possible, the share of their fiscal year 2004 expenditures for grazing-related activities on federal lands, as shown in table 5.

Table 5: Expenditures for Grazing-Related Activities by Other Agencies on Federal Lands, Fiscal Year 2004

Agency	Activity	Expenditures
Agricultural services		
USDA		
Animal and Plant Health Inspection Service	Wildlife Services conducts control projects (hunting and trapping) for nuisance species and predators. Plant Protection and Quarantine conducts insect control on western lands in particular and has a Mormon cricket and grasshopper program that targets treatments in infested areas to prevent outbreaks.	\$5,183,000
Cooperative State Research, Education, and Extension Service	Conducts education and extension services to help public agencies like BLM and the Forest Service and private landowners manage their range resources.	Not available ^a
Farm Service Agency	Provides operating, ownership, and emergency loans to farmers and ranchers. Also provides disaster assistance to livestock producers through various programs.	Not available ^a
National Agricultural Statistics Service	Conducts surveys of different farm sectors, prices, and products, including ranching, livestock, and cattle. Conducts specific surveys to produce data needed to calculate federal grazing fee.	\$105,500 ^b
Natural Resources Conservation Service	Works with private landowners to conserve soil, water, vegetation, and other resources. Manages programs to conserve wetlands, land (easements), and water.	Not available ^a
Risk Management Agency	Provides insurance products that may apply to federal lands and tools for making resource decisions. Developing a Web tool to assist managers in applying prescribed burns to rangelands.	Not available ^a
Subtotal agricultural services		\$5,183,000^b
Legal services		
USDA Office of General Counsel	Provides legal advice and support for the Forest Service in managing its grazing lands and permits.	\$194,000
Interior's Office of the Solicitor ^c	Provides legal advice and support for agencies that manage grazing programs.	\$493,000 ^d
Justice	Provides legal services such as litigating grazing-related cases.	\$159,000
Subtotal legal services		\$846,000
Consultations		
U.S. Fish and Wildlife Service ^d	Conducts consultations to determine if grazing programs jeopardize terrestrial or freshwater threatened and endangered species, or adversely modify or destroy critical habitat.	\$549,000
NMFS ^d	Conducts consultations to determine if grazing programs jeopardize ocean-dwelling and anadromous threatened and endangered species, or adversely modify or destroy critical habitat.	\$132,000
Subtotal consultations		\$681,000

(Continued From Previous Page)

Agency	Activity	Expenditures
Research		
USGS ^e	Conducts research on the effects of grazing on plant communities, including invasive species; runoff and erosion; select species or species groups; and ecosystem health, including riparian areas.	\$1,350,000
Agricultural Research Service	Conducts research on plant resources, forage, livestock, and grazing management, as well as natural resource problems such as invasive species.	Not available ^a
Forest Service Research	Conducts integrated studies of grazing on public lands, which involves effects of livestock grazing on resources.	\$368,000
Subtotal research		\$1,718,000
Other		
Environmental Protection Agency	Provides grant money to states under section 319 of the Clean Water Act to improve watersheds by reducing nonpoint source pollution, including increased runoff and sedimentation from livestock grazing.	Not available ^a
Total all activities		\$8,428,000^b

Source: Agencies (data); GAO (analysis).

Note: Numbers may not total due to rounding.

^aThese agencies could not distinguish their expenditures on private and public lands.

^bThe National Agricultural Statistics Service estimated its expenditures to be \$105,500, the full amount of which was reimbursed by BLM and the Forest Service because the data produced are used to set grazing fees. Therefore, these expenditures are not included in the total.

^cThe Solicitor's expenditures include funds reimbursed by BLM for legal services provided to the agency. According to BLM staff, because the attorney provides services to BLM in general, the appropriate share of expenditures that should be applied to grazing is difficult to estimate. As a result, some of the Solicitor's funds may also be counted under BLM's expenditures.

^dThe U.S. Fish and Wildlife Service noted that fiscal year 2004 was the first year that it implemented its cost-accounting system to capture these costs, and it has not yet determined the level of accuracy that the system will provide for distinguishing expenditures for various activities. While NMFS did not use a cost-accounting system to determine its expenditures, it estimated its expenditures using time estimates for specific employees that worked on grazing consultations in 2004. NMFS reported these data for the calendar year, not the fiscal year.

^eUSGS estimated its fiscal year 2004 expenditures based on its 2005 budget figures; according to an official, funding has been stable.

Agricultural services. As the table shows, in fiscal year 2004, the largest amount of identified expenditures for grazing-related activities went to agricultural services provided by USDA. The Animal and Plant Health Inspection Service spent most of these funds to control nuisance species and insects, such as Mormon crickets and grasshoppers, that affect forage on federal lands. Not all the agencies identified as having programs that might be used by ranchers with federal permits and leases could separate out the funds they spent on public lands. For example, the Natural Resources Conservation Service helps ranchers manage their soil, water, and vegetation to prevent the resources from becoming degraded; however,

because the agency focuses on ranchers, it cannot distinguish the work that it performs on private land from work on federal lands.

Legal services. Justice attorneys represent the United States in cases that go to court or settlement, while Interior's Office of the Solicitor and USDA's Office of General Counsel provide legal advice to the agencies. In addition to these expenditures, BLM and Forest Service staff provide support work for litigation in the form of copying and preparing administrative files and documents, but these expenditures are not tracked separately from the agencies' other work. Legal services would include any payment of attorney fees; however, none were paid in fiscal year 2004. Attorney fees are usually paid by agencies, but in some cases would be paid from the Department of Treasury's Judgment Fund.

Consultations. The federal agencies with grazing programs must consult, in some cases, with the U.S. Fish and Wildlife Service and NMFS to determine if their grazing programs pose any problem for threatened and endangered species. The U.S. Fish and Wildlife Service consults with the agencies on the potential effects to terrestrial animals and freshwater species, while NMFS consults with the agencies on the potential effects to anadromous fish—that is, fish that live in both fresh and saltwater.

Research. USGS has four centers that conduct research on the effects of grazing on plant communities, including invasive plants; runoff and erosion, and other hydrologic and soil conditions; select species or species groups, including sage grouse, amphibians, grassland birds, and bats; and ecosystem health, including riparian areas. The agency works with federal land management agencies on these and related issues to inform management actions and plans and to design and implement rangeland monitoring and inventories. The Forest Service's Rocky Mountain and Pacific Northwest research stations conduct integrated studies of the effects of livestock grazing on lands and resources and assist national forests and grasslands by providing them this information. Finally, USDA's Agricultural Research Service has more than 100 laboratories in almost every state. The agency conducts research on ecosystems and sustainable management, plant resources, forage management, livestock management, and management of pests and weeds. Because the agency's work benefits both the livestock industry and public lands, the Agricultural Research Service cannot estimate its expenditures related to grazing on federally managed lands.

Environmental Protection Agency. The agency provides grants to states to improve watersheds and water quality that has been impaired by nonpoint sources of pollution, such as agricultural runoff. States use the funds to develop projects to remove or decrease sources of pollution. For example, New Mexico received funds to improve the Chama River and its tributaries, and the Santa Fe National Forest participated by conducting different vegetation and livestock management activities, such as fencing riparian areas, developing alternative water sources in areas away from the river, and ensuring the rotation of livestock into different pastures away from the river. However, because many grazing areas include both federal and nonfederal lands and because states are not required to track what type of land is involved in a project, Environmental Protection Agency officials stated that they cannot identify the funds that are spent on federal lands that have been grazed.

**Federal Agencies
Collected About \$21
Million in Grazing
Receipts in Fiscal Year
2004—Less Than
One-Sixth of the
Expenditures Needed
to Manage Grazing**

The 10 federal agencies collected a total of about \$21 million from fees charged for their grazing permits and leases in fiscal year 2004—less than one-sixth of the expenditures needed to manage grazing; the largest amount of funds, \$17.5 million, was collected by BLM and the Forest Service. From the total amount, the agencies distributed almost \$5.7 million to states and counties, deposited almost \$3.8 million in the Treasury as miscellaneous receipts, and deposited at least \$11.7 million to separate Treasury accounts to be further appropriated or used by the agencies for their various programs. In addition, the DOD services received payment in-kind valued at almost \$1.4 million to offset grazing fees, and Reclamation and the U.S. Fish and Wildlife Service also received in-kind services. Reclamation received services valued at about \$1,100, and the U.S. Fish and Wildlife Service received services of unknown value. The distribution of funds depends on the agencies' different authorities.

BLM and the Forest Service Collected About \$17.5 Million in Grazing Receipts in Fiscal Year 2004, Distributed About \$4.8 Million to States and Counties, and Deposited About \$3.7 Million to the General Fund of the Treasury and Almost \$8.8 Million to Range Improvement Funds

BLM and the Forest Service collected about \$17.5 million, or 83 percent, of all grazing receipts federal agencies collected in fiscal year 2004. As shown in table 6, depending on the authorities under which the receipts were raised, the funds were distributed to the states, deposited into the general fund of the Treasury, and deposited into special accounts in the Treasury for further appropriation and agency use, including use for range improvement.

Table 6: BLM and Forest Service Grazing Receipts, Fiscal Year 2004

Dollars in millions

Agency	Receipts	Disposition of receipts		
		Receipts distributed to states and counties	Receipts deposited in the general fund, Treasury	Receipts deposited in Treasury range improvement funds
BLM	\$11.8	\$2.2	\$3.7	\$5.9 ^a
Forest Service	5.7	2.6	Unknown	2.9
Total	\$17.5	\$4.8	\$3.7	\$8.8

Source: Agencies (data); GAO (analysis).

^aIn fiscal year 2004, BLM also deposited \$1.2 million in certain mineral receipts as funds for range improvements. The total funds deposited were therefore \$7.1 million.

Under FLPMA, 50 percent or \$10 million, whichever is greater, of fees collected in a year for grazing on BLM lands managed under the Taylor Grazing Act and the Act of August 28, 1937, and on Forest Service land in the 16 western states, are to be credited to a special fund receipt account in the Treasury for range rehabilitation, protection, and improvements, called the range improvement fund. Half of this account is authorized to be appropriated for use in the district, region, or national forest from which it was generated, and the remaining half is to be used for range rehabilitation, protection, and improvement as the Secretary directs. According to agency officials, the agencies distribute 50 percent of the actual grazing receipts from their individual grazing accounts to their respective range

improvement funds. As table 6 shows, in fiscal year 2004, BLM distributed about \$5.9 million to its range improvement fund, and the Forest Service distributed about \$2.9 million to its range improvement fund, for a total of about \$8.8 million. BLM distributes grazing fees from four accounts, according to where the funds were collected—within or outside a grazing district or from grasslands. It also deposits certain mineral receipts into its range improvement fund; in fiscal year 2004, it deposited \$1.2 million in mineral receipts. The Forest Service deposits receipts and distributes funds from its National Forest Fund that also contains receipts for other activities on forest lands such as timber harvest.

In addition to the receipts distributed to range improvement—under the Taylor Grazing Act, the Act of August 28, 1937, and the Bankhead-Jones Farm Tenant Act—BLM also distributes receipts from the four accounts to states and the Treasury, according to whether the fees were collected within or outside a grazing district or from grasslands.¹⁹ For lands within grazing districts—those lands on which grazing is permitted—BLM distributes 12.5 percent of receipts to the states in which the grazing districts are situated and deposits the remaining receipts in the Treasury as miscellaneous receipts. For lands outside of grazing districts—those lands that are leased—BLM distributes 50 percent of the receipts to the states and does not return any funds to the Treasury as miscellaneous receipts. For grasslands, BLM distributes 50 percent of receipts to the range improvement fund, 25 percent to states, and 25 percent to the Treasury as miscellaneous receipts. The states are to distribute the funds to the counties in which the lands are permitted or leased for school or road purposes. In 2004, the agency distributed more than \$2.2 million to the states and counties and deposited more than \$3.7 million in the Treasury.

Under the Act of May 23, 1983, the Forest Service distributes 25 percent of all of its receipts—timber, recreation, grazing, and others—to states for schools and roads. Alternatively, the states can receive funds under the Secure Rural Schools and Community Self-Determination Act of 2000. This act sought to stabilize payments to states in which shared revenues from the federal lands, such as from timber, were dwindling. The act allows some counties and states to choose a payment equal to the average of the three highest payments for Forest Service receipts during a particular eligibility period. As a result, the Forest Service makes a mix of payments,

¹⁹BLM also distributes funds from certain lands in Oregon and California under the Act of August 28, 1937, 50 Stat. 875.

depending on what each county has chosen. In 2004, the Forest Service estimated that it distributed more than \$2.6 million in grazing receipts to the states and counties; because the Forest Service deposits many types of receipts into the Treasury, it was unable to estimate the amount of grazing funds deposited in the Treasury as miscellaneous receipts.

National Park Service, U.S. Fish and Wildlife Service, Reclamation, DOE, and DOD Services Collected More Than \$3.7 Million in Grazing Receipts in Fiscal Year 2004 and Distributed About \$855,000 to States and Counties, Deposited About \$65,000 in the General Fund of the Treasury, and Deposited at Least \$2.9 Million in Separate Treasury Accounts

Grazing receipts collected by the National Park Service, U.S. Fish and Wildlife Service, Reclamation, and the DOD services totaled more than \$3.7 million in fiscal year 2004, with the U.S. Fish and Wildlife Service generating the largest amount, more than \$1.0 million. In addition, the agency received services in-kind of an unknown value. Under the interagency agreement between DOE and BLM, BLM retains grazing fees collected at DOE's Idaho National Laboratory. The DOD services—which combined received a total of more than \$2.0 million from fees—also received almost \$1.4 million in payments in-kind that offset grazing fees. The agencies have different authorities for distributing the receipts collected from use of their lands. Table 7 shows the results of the distribution in fiscal year 2004. Of the \$3.7 million in total receipts, more than \$855,000 was distributed—by three of the eight agencies—to the states or counties in which the receipts were collected in fiscal year 2004. Two agencies deposited about \$65,200 in the general fund of the Treasury as miscellaneous receipts, and each of the agencies deposited varying portions of the receipts for their programs.²⁰

²⁰The amounts distributed and deposited are greater than the amounts collected because the DOD military services have reimbursable programs in which they can collect and keep funds and use them to reimburse or fund their grazing and agricultural programs. The amounts spent do not have to equal the amount collected in any given year.

Table 7: National Park Service, U.S. Fish and Wildlife Service, Reclamation, DOE, and DOD Services Grazing Receipts, Fiscal Year 2004

Agency	Receipts	Disposition of receipts		
		Receipts distributed to states and counties	Receipts deposited in the general fund, Treasury	Receipts deposited in special Treasury accounts for agency programs
Interior				
National Park Service	\$196,000	\$800	\$2,500	\$192,000
Reclamation	478,000 ^a	0	0	478,000 ^b
U.S. Fish and Wildlife Service	1,029,000	541,000 ^c	0	488,000 ^c
Subtotal	\$1,702,000	\$542,000	\$2,500	\$1,158,000
DOE ^d				
DOD ^e				
Air Force	\$663,000	0	0	\$773,000
Payment in-kind (offsets)	(300,000)			
Army	706,000	0	0	941,000
Payment in-kind (offsets)	(211,000)			
Corps	487,000	313,000	62,700	42,000
Payment in-kind (offsets)	(301,000)			
Navy	150,000	0	0	39,000
Payment in-kind (offsets)	(562,000)			
Subtotal	\$2,006,000	\$313,000	\$62,700	\$1,794,000
Subtotal offsets	(\$1,375,000)			
Total without offsets	\$3,708,000	\$855,000	\$65,200	\$2,952,000
Total offsets	(\$1,375,000)			
Total with offsets	\$5,083,000	\$855,000	\$65,200	\$2,952,000

Source: Agencies (data); GAO (analysis).

Note: Numbers may not total due to rounding.

^aOf the total, about \$476,600 was collected as cash receipts, and about \$1,100 was provided as services in-kind to offset fees. Of the \$476,600, Reclamation collected more than \$303,300, and the agencies that manage grazing permits and leases on Reclamation lands collected and distributed almost \$173,300 to Reclamation. In addition to the \$173,300 that they distributed to Reclamation, the agencies that manage grazing permits and leases for Reclamation collected and retained almost \$108,500, for a total of almost \$282,000.

^bOf the \$476,600 collected by Reclamation in cash receipts, about \$188,000 was deposited into the Reclamation Fund, and about \$279,200 was retained by Reclamation to repay projects; agency officials could not explain where about \$9,400 was credited.

^cThe U.S. Fish and Wildlife Service disburses all receipts for activities such as grazing, forest products, oil and gas, sand and gravel, and others from its National Wildlife Refuge Fund. Because the agency cannot separate out the disbursed funds by type, such as grazing, we used the percent that grazing funds made up of total funds to show the distribution. Grazing funds were 16 percent of the total funds.

^dDOE has an agreement with BLM to manage its grazing and therefore the grazing receipts gathered are included in BLM's totals.

^eThe military services' programs are reimbursable in that the services collect funds and then use those funds to reimburse or pay for program expenditures.

National Park Service. The National Park Service has the authority to recover its costs of providing services associated with its special-use expenditures. These reimbursements are to be credited to the current appropriation. Under National Park Service guidance, each national park retains funds to reimburse its expenditures for managing grazing and is responsible for calculating the amount of funding that it can recover.²¹ In fiscal year 2004, the parks retained about 98 percent of their grazing receipts and distributed about 1 percent to the Treasury. Two parks—Blue Ridge National Parkway and Point Reyes National Seashore—gathered 75 percent, or about \$146,000, of the total receipts. In addition to the amounts retained by the parks, the City of Rocks National Reserve in Idaho distributed about \$800 to the state in fiscal year 2004 under a cost-sharing arrangement.

U.S. Fish and Wildlife Service. Under the Refuge Revenue Sharing Act of 1935, as amended, the U.S. Fish and Wildlife Service deposits grazing receipts—as well as receipts it gathers for other uses of its lands—into a separate Treasury account called the National Wildlife Refuge Fund. The funds deposited remain available until expended, without further appropriation, and the Secretary may pay necessary expenditures incurred by the U.S. Fish and Wildlife Service from the account. The act also requires the agency to make payments to counties to offset tax losses for the purchase of fee title lands,²² based on a formula contained in the law that entitles counties to the greater of three amounts: (1) \$0.75 multiplied by the total acres of fee title land in the county; (2) three-quarters of 1 percent of the fair market value of the fee title land in that county; or (3) 25 percent of the net receipts collected by the agency at that unit. The Secretary is also required to pay 25 percent of the net receipts collected on lands reserved from the public domain. In practice, the agency retains a portion of all receipts from its lands to pay for various administrative and

²¹In a recent GAO report, we found inconsistencies in the cost recovery methods used by parks for some of their special use permits, the same type of permit used for grazing activities. GAO, *National Park Service: Revenues Could Increase by Charging Allowed Fees for Some Special Use Permits*, GAO-05-410 (Washington, D.C.: May 6, 2005).

²²We use fee title land to refer to land that was acquired by the United States and is managed by the U.S. Fish and Wildlife Service.

refuge expenditures and provides the remainder to the counties. In fiscal year 2004, the agency collected more than \$6 million in receipts for all permitted uses on its lands; and about 16 percent of the receipts were grazing receipts. After the agency retained \$3.1 million for its use, it had about \$3.5 million to pay to the counties. Because grazing receipts collected in fiscal year 2004 represented about 16 percent of total receipts, we estimate that the U.S. Fish and Wildlife Service retained about \$488,000 for its refuge system administration and distributed about \$541,000 to counties.

Reclamation. Reclamation credits revenues generated from grazing leases in a number of different ways. For example, under specific project authorizations, Reclamation retains receipts to repay projects or deposits funds to be appropriated for future projects. Under Reclamation's agreements with the agencies that manage leases on its land, grazing fees will be deposited into a Treasury account. When authorized by Reclamation, the fees may remain with the managing agency to serve as reimbursement. In fiscal year 2004, of the total amount collected for grazing on Reclamation land, about \$303,300 came from grazing leases that Reclamation manages and about \$173,300 came from leases managed by other agencies; the agency also received about \$1,100 in services in-kind to offset fees. Reclamation deposited about \$188,000 in the Reclamation Fund in the Treasury and retained about \$279,200 to repay projects (agency officials could not explain into which of these accounts the remaining \$9,400 was deposited). The other agencies that manage grazing leases on Reclamation land kept about \$108,500 in grazing receipts.

DOD. The Army, Air Force, and Navy do not return grazing receipts to the states or the Treasury, while the Corps is required to deposit all of its receipts—for recreation, grazing, or other leases of lands surrounding its water projects—in the Treasury; the Secretary of the Treasury is then required to return 75 percent of these receipts to the states in which the lands are located. The Army, Corps, Air Force, and Navy are authorized to retain and spend funds to cover the administrative expenses of their grazing programs and to cover the financing of multiple land use

management programs at any of their installations.²³ The Corps district offices began retaining and managing 10 percent of their receipts for administrative expenses in fiscal year 2004; agencywide, these receipts totaled almost \$42,000. Under their leasing authorities, the Army, Corps, Air Force, and Navy collected more than \$3.7 million in receipts and received payments in-kind valued at about \$1.4 million to offset fees. The DOD services offset fees by allowing the lessees to work on the grazing lands to pay for a portion or all of the lease. For example, some of the grazing programs at DOD installations, projects, and bases allow the lessees to maintain fences or mow the lands, in addition to grazing, to reduce vegetation. The value of such services—and therefore the offset value—is either estimated by the staff in charge of grazing programs based on prior expenditures, prices from the Natural Resources Conservation Service, or bids submitted by the ranchers.

Grazing Fees Charged by Federal Agencies, Western States, and Private Ranchers Varied Widely, Depending on the Purpose of the Fee and the Approach Taken to Set It

Fees charged in 2004 by the 10 federal agencies, as well as state land agencies and private ranchers, varied widely, depending on the purpose for which the fees were established and the approach to setting the fee.²⁴ On BLM and Forest Service lands in the 11 western states, the grazing fee was \$1.43 per AUM, while the fees on other federal lands varied from \$0.29 to over \$112 per AUM. In part, the BLM and Forest Service fee, which was initially set by legislation and was extended by executive order, enables ranchers to stay in production by keeping fees low to account for conditions in the livestock market. Most other federal agencies generally charge a fee based on competitive methods or set to obtain a market price for the forage on their lands, and some of them also seek to recover expenditures for their grazing programs. Similarly, state land offices in the 17 western states and private ranchers seek market value for grazing on their lands; the state agencies charged from \$1.35 to \$80 per AUM, while

²³The agencies hold the funds in their suspense accounts until the funds can be either credited or obligated to the services' respective grazing programs. A recent GAO report discussed accounting weaknesses related to the accounts. GAO, *DOD Problem Disbursements: Long-standing Accounting Weaknesses Result in Inaccurate Records and Substantial Write-offs*, GAO-05-521 (Washington, D.C.: June 2, 2005). To improve accountability, in July 2005, the DOD Deputy Chief Financial Officer directed that specific suspense subaccounts be used to capture receipts from grazing leases.

²⁴Grazing fees for BLM and the Forest Service are for the grazing year (March to February). All other federal agencies reported fees for the fiscal year. States predominantly reported fees for the fiscal year, although some reported fees for the calendar year. Private ranchers' fees are reported for the calendar year.

the average price private ranchers charged ranged from \$8 per AUM in Arizona and Oklahoma to \$23 per AUM in Nebraska. If the BLM and the Forest Service were to charge a fee for the purpose of recovering their expenditures, they could have charged up to \$7.64 per AUM and \$12.26 per AUM, respectively, in 2004. If they were to charge a market-based fee, the fee could vary but would likely not equal private or state fees. The prices charged by other federal agencies, states, and private ranchers may vary because of factors, such as range productivity, services provided by the landowner, and access to land.

**BLM and Forest Service
Grazing Fee in Western
States Is Lower Than Fees
Charged by Other Agencies,
States, and Ranchers
Because It Was Established
to Support the Western
Livestock Industry**

The grazing fee BLM and the Forest Service charge in western states is based on a formula that was originally established by PRIA to, among other things, prevent economic disruption and harm to the western livestock industry; the formula expired after 7 years but was extended indefinitely by Executive Order 12548.²⁶ Federal grazing fees are set using a formula to achieve multiple conflicting objectives, including achieving fair market value; recovering federal expenditures for the program; and treating different parties such as ranchers, the public, and other users of public lands equitably. As a result, the fee produced by the formula is generally lower than the fees charged by the other agencies, states, and private ranchers. Table 8 shows the fees charged by each agency, state, and private ranchers, as well as the approach to setting the fee—either a formula or a market-based approach. None of the federal or state agencies use an approach that strictly recovers their agencies' administrative or management expenditures.

²⁶The Taylor Grazing Act directs the Secretaries of Agriculture and the Interior to charge "reasonable fees." 43 U.S.C. § 315(b). A federal district court has determined that FLPMA did not alter this objective. See *Natural Resources Defense Council v. Hodel*, No. S-86-0548, slip op. at 3-4 (E.D. Cal. Oct. 13, 1987). The preamble to FLPMA states that it is the policy of the United States to receive fair market value for the use of public lands. However, FLPMA specially instructs the Secretaries of Agriculture and the Interior to determine a fee that is "equitable to the United States and to the holders of grazing permits and leases," which takes into consideration the costs of production along with other factors that may relate to the reasonableness of the fee. 43 U.S.C. § 1751(a). The IOAA similarly provides that fairness, public policy interests, and other interests and relevant factors are to be considered in establishing a fee.

Table 8: Fees Charged by Federal Agencies, State Land Agencies, and Private Ranchers, 2004

Agency	Range of fees charged per AUM (or equivalent) ^a	Average fee charged per AUM (or equivalent) ^a	Approach to setting fee
Interior			
BLM	^b	\$1.43	Executive order—formula
National Park Service	\$1.35 to \$7.00 1.50 to 25.00 per acre	4.30	Fixed prices and market value
Reclamation	1.27 to 56.46	10.93	Market value and fixed prices
U.S. Fish and Wildlife Service	0.29 to 34.44	11.24	Market value and negotiated prices
USDA			
Forest Service—16 western states	^b	1.43	Executive order—formula
Forest Service—grasslands	^b	1.52	Formula
Forest Service—eastern states	2.47 to 5.04	^b	Formula and market value
DOE			
	^b	1.43	BLM fee—formula
DOD			
Air Force	1.35 to 26.67 ^c	15.49	Market value
Army	0.99 to 66.09 ^c	19.10	Market value
Corps	0.82 to 112.50 ^c	6.22	Market value
Navy	10.42 to 97.49 ^c	32.60	Market value
States			
Arizona	^b	2.23	Market-based appraisal with annual adjustment
California	1.35 to 12.50	^b	Market based on average rates
Colorado	6.65 to 8.91	^b	Market-based formula
Idaho	^b	5.15	Formula similar to federal fee
Kansas	^d	^d	^d
Montana	5.48 to 80.00	^b	Market with minimum bid
Nebraska	16.00 to 28.00	^b	Market with minimum bid
New Mexico	0.71 to 10.15 per acre	^b	Market with minimum bid
Nevada	^d	^d	^d
North Dakota	1.73 to 19.69 per acre	^b	Market with minimum bid
Oklahoma	7.00 to 16.00	^b	Market with minimum bid
Oregon	^b	4.32	Formula based on production factors
South Dakota	3.00 to 56.00 per acre	^b	Market with minimum bid
Texas	4.16 to 12.50	^b	Market-based appraisal
Utah	^b	1.43 or 2.35	Formula similar to federal fee
Washington	^b	5.41 or 7.76	Market-based formula or formula based on production factors

(Continued From Previous Page)

Agency	Range of fees charged per AUM (or equivalent) ^a	Average fee charged per AUM (or equivalent) ^a	Approach to setting fee
Wyoming	^b	4.13	Market-based formula
Private ranchers—17 states ^c	8.00 to 23.00	13.40	Market value

Sources: GAO's analysis of data provided by 10 federal agencies, 17 state agencies, and USDA's National Agricultural Statistics Service.

Note: The 11 western states used to calculate the BLM and Forest Service fee are Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming. The 9 western and Great Plains states used to calculate the Forest Service grassland fee are Colorado, Kansas, Nebraska, New Mexico, North Dakota, Oklahoma, South Dakota, Texas, and Wyoming.

^aFor permits and leases that are competitively bid, a total amount is often bid. In such cases, we divided that total by the amount of AUMs in the permit or lease to determine an equivalent fee per AUM.

^bData are not applicable or available.

^cThe ranges reported for the Army, Corps, Air Force, and Navy have been converted by dividing the total receipts plus offsets by the number of AUMs reported. The ranges are based on average lease prices for the installations, bases, and projects.

^dKansas and Nevada do not manage grazing on state trust lands and therefore did not provide fee information.

^eThe private rancher fees in the 17 states are calculated using AUM and per head data, adjusted. The formula is (AUM + per head)/2.

As shown in table 8, the fee BLM and the Forest Service charged for the western states in 2004 was \$1.43 per AUM. The fee, which is set for each upcoming grazing year (March to February), is produced by a formula that consists of a \$1.23 base value, multiplied by the sum of three indexes that are calculated each year by USDA's National Agricultural Statistics Service.²⁶ These indexes are based on data collected in the agency's livestock, prices, and cattle surveys. In effect, the fee is adjusted to reflect ranchers' ability to pay. The \$1.23 base value represents the difference between the costs of conducting ranching business on private and public lands,²⁷ as computed in a 1966 study of 10,000 ranching individuals in the western states. The three indexes are the following:

²⁶The exact formula is: Fee = \$1.23 x (FVI + BCPI - PPI)/100. The data used to calculate the fee are from the year prior to the year when the fee is charged. For example, the 2004 fee is based on data from 2003.

²⁷The base was calculated with the premise that the cost of conducting livestock grazing on private and public lands should be equal. Under this premise, the \$1.23 base was calculated by totaling the costs of conducting livestock grazing on private lands, including grazing fees, and subtracting the total cost of conducting business on public lands, excluding grazing fees.

-
- *Forage Value Index (FVI)*. This index is based on the weighted average estimate of the annual rental charge for cattle on private rangelands in 11 western states.
 - *Beef Cattle Price Index (BCPI)*. This index is based on the weighted average selling price for beef cattle in the 11 western states.
 - *Prices Paid Index (PPI)*. This index includes select adjusted components from USDA's *Index of Prices Paid by Farmers for Goods and Services*. The components include items such as fuel, tractors and machinery, interest, and farm wage rates.

Under both PRIA and the executive order, increases and decreases in the fee are limited to 25 percent per year, and under the executive order, the fee cannot drop below \$1.35 per AUM.

The Forest Service's fees for grazing on national grasslands and eastern forests differ from the fee charged in its forests in the 16 western states. The fee charged for grasslands uses a formula similar to the western grazing fee, but with a different base value that recognizes the different costs for managing national forests versus national grasslands. The fee charged for grazing in the eastern forests is based on a formula with a noncompetitively established base value adjusted by the current period's hay price index, less the value of any range improvements required by the agency. The 2004 fee for grasslands was \$1.52 per AUM, and the fee for eastern forests ranged from \$2.47 per AUM in Florida to \$5.04 per AUM in the northeastern states for noncompetitive permits. In addition, the Forest Service puts some permits up for competitive bidding in the eastern states.

Appendix IV discusses the BLM and Forest Service fee and formula first established under PRIA in more detail, the history of the federal grazing fee, and the results of studies conducted over the years to recommend alternative approaches to charging fees.

U.S. Fish and Wildlife Service, Reclamation, and DOD Services Generally Set Fees at, or Close to, Market Value

In contrast to the fee charged by BLM and the Forest Service for grazing on western lands, the National Park Service, U.S. Fish and Wildlife Service, Reclamation, and DOD services are required or directed to set fees that reflect, or come close to, market value. The agencies do not have one uniform approach to setting a grazing fee: some of the agencies, such as the Air Force and National Park Service, charge per acre; and others, such as the Corps, receive a total bid price for a pasture. To achieve a fair market

value, in some instances, the agencies use a competitive bidding process that involves notifying the public of the opportunity to permit or lease a grazing pasture, the acceptance of sealed bids, and the selection of the highest bid. In other instances, the agencies conduct a market appraisal of a grazing property, or use an average prevailing rate for the local area, and set a fee based on those values. Consequently, as the following discussion shows, the prices that the agencies charge vary widely, from as low as \$0.29 per AUM to more than \$112.50 per AUM.²⁸

National Park Service. The fees charged for grazing in fiscal year 2004 ranged from \$1.35 to \$7 per AUM and \$1.50 to \$25 per acre. National Park Service guidance directs parks to charge fair market value for special uses such as grazing, unless otherwise directed by law. The fees charged in fiscal year 2004, which were set by individual parks or park units, included some fees set at market prices and others that were negotiated or fixed. The lowest fee per AUM, \$1.35, was charged by several parks, including Black Canyon of the Gunnison National Park in Colorado and Capitol Reef National Park in Utah. The highest fee per AUM, \$7, was charged by Point Reyes National Seashore, in northern California. That park used an independent appraisal of its lands to establish the grazing fees. The lowest per acre fee in fiscal year 2004, \$1.50 per acre, was negotiated at the Buffalo National River in Arkansas. The highest per acre fee, \$25, was charged at several parks, including Minuteman Missile National Historic Site in South Dakota, which set its fee based on average local rates, and Eisenhower National Historic Site and Gettysburg National Military Park in Pennsylvania, which fixed their grazing fees, also based on average local rates. Similarly, Blue Ridge National Parkway, in Virginia and North Carolina, which accounted for just over 50 percent of total Park Service livestock grazing permits in fiscal year 2004, charged a rate of \$10 per acre for each of its 212 permits. The fee was established using values in a 2002 survey that the park's staff conducted of other National Park Service field offices that administer agricultural programs, as well as market-rate information for grazing in the vicinity of the parkway that the park staff gathered from county extension and other agricultural offices.

U.S. Fish and Wildlife Service. The grazing fees charged in fiscal year 2004 were, for the most part, established using market-value prices, including prices set by USDA's National Agricultural Statistics Service. Prices ranged

²⁸For fees that are competitive, a total amount is bid. In such cases, we divided that total by the amount of AUMs in the permit or lease to determine an equivalent fee per AUM.

from \$0.29 per AUM to \$34.44 per AUM; both fees were based on competitive bids for grazing permits at the Sand Lake Wetland Management District in South Dakota, where access to small sites and forage conditions can vary greatly. Under U.S. Fish and Wildlife Service regulations, refuges are to charge a fee for the grant of privileges or products taken from refuges that is commensurate with fees charged for similar privately granted privileges or products, or with local market prices. To establish the fees charged in fiscal year 2004, most refuges—particularly those in western states—issued permits at the market rate, including the USDA rate. For example, the fee charged at the refuge with the largest amount of grazing, the Charles M. Russell National Wildlife Refuge in Montana, averaged \$14.76 per AUM. A few refuges did not use a market value fee but instead negotiated the grazing fee with the permittee. For example, managers at the Hutton Lake National Wildlife Refuge in Wyoming negotiated a fee of \$8.80 per AUM, based on the USDA rate, less services for fencing and irrigation.

Reclamation. In fiscal year 2004, the fees charged ranged from \$1.27 per AUM to \$56.46 per AUM. Reclamation guidance directs the agency to enter into permits and leases using competitive means when there is likely to be demand from more than one party, but permits and leases may be negotiated when it is in the best interest of the United States or if no competition is present. In fiscal year 2004, while the majority of Reclamation's area offices set grazing fees using competitive approaches, or other approaches that establish a market price, some of the offices used fixed fees or negotiated with local ranchers to agree on a fee. For example, the Wyoming Area Office, which manages several projects in and around the state of Wyoming, used competitive bidding that opened with a minimum bid. The area office staff set the minimum bid using the average private lease rates in the state, as provided by USDA. One area office also used a discounted lease method, in which the office used an average private lease rate for the area and discounted it for factors such as multiple uses of the lands.²⁹ When area offices charged fixed fees, they generally set

²⁹Reclamation area offices used different market-based approaches to set fees, including appraisals, a competitive method with a minimum bid, a limited method, and a discounted method. To establish market prices in instances in which competition is limited to ranchers that have access to the parcels involved, Reclamation area offices use a "limited" market approach to set fees, in which a permit or lease is competitively bid among the limited number of ranchers who have direct access to the grazing allotment. In those cases in which only one rancher has access to Reclamation land, the area offices may offer the permit or lease to the rancher at the minimum fee.

them at historic levels. For example, the Lahontan Basin Area Office, which manages Reclamation activities in the Lahontan Basin Area in northern Nevada and eastern California, manages 56 grazing permits and leases that were inherited from local irrigation districts and charged the same fee in fiscal year 2004 as the irrigation offices charged in the past.

DOE. In its agreement with DOE to manage on Idaho National Laboratory land, BLM charges its current fee for grazing on DOE lands.

DOD. In fiscal year 2004, the Army, Corps, Air Force, and Navy, offered the majority of their leases as competitive bids. The bids ranged from an average of \$0.82 to \$112.50 per AUM. Under the laws and regulations for grazing on lands managed by the services, their lands may be leased for up to 5 years and payment for a lease is generally to be fair market value, although the payment can be made through services in-kind. The DOD services may accept less than fair market value under certain circumstances when it is determined that a public interest will be served. For example, Army officials recently negotiated a new 5-year lease for grazing at Fort Hood (in Texas) with a group of cattlemen that included some previous landowners. The Army determined that, although it had no legal obligation to continue leasing only to this group, its relationship with the neighboring ranchers helped to sustain its mission, meet its environmental stewardship responsibilities, and maintain its good relations with the community. In April 2005, the Army negotiated a grazing price that was 40 percent lower than the appraised value, pending a new appraisal that explicitly considered the unique military circumstances of grazing on the installation. The new appraisal, completed in August 2005, valued the lease at a price per animal unit that is 30 percent less than the fair market value assessed for other, similar grazing parcels to account for such unique military circumstances.

See appendix V for details of federal grazing fees charged by these agencies.

Private Ranchers and State Land Agencies Generally Set Fees at Market Values to Generate Revenues

Fees charged by private ranchers and state land agencies are higher than the BLM and Forest Service fees because, generally, ranchers and state agencies seek to generate grazing revenues by charging a price that represents market value for that land and/or the services provided. The average fee private ranchers charged in 2004 in the 11 western states was

\$13.30 per AUM and \$13.80 per head of livestock,³⁰ which represents market value, or the price that ranchers are willing to pay and receive for privately owned grazing lands in western states. This fee is determined annually through USDA surveys of private ranchers in 17 western states and is the average price ranchers (producers) reported as being paid in their area for privately owned nonirrigated grazing land. The National Agricultural Statistics Service calculates the average for each state, as well as for the 9 Great Plains states and different combinations of western states—11 western states, 16 western states, and 17 western states.³¹ As shown in table 9, the average private grazing fee for the states ranged from \$8.00 per AUM in Arizona and Oklahoma to \$23.00 per AUM in Nebraska.

Table 9: Fees Charged by Private Ranchers and State Land Agencies in 2004

State	State land agency (per AUM unless noted)	Average private fee (per AUM) ^a	Average private fee (per head) ^a
Arizona	\$2.23	\$8.00	\$9.00
California	1.35 to 12.50	14.50	15.50
Colorado	6.65 to 8.91	13.50	14.00
Idaho	5.15	12.20	12.60
Kansas	^b	13.00	13.50
Montana	5.48 to 80.00	15.90	16.20
Nebraska	16.00 to 28.00	23.00	25.20
Nevada	^b	10.60	12.00
New Mexico	0.71 to 10.15 per acre	9.70	11.00
North Dakota	1.73 to 19.69 per acre	13.00	13.50
Oklahoma	7.00 to 16.00	8.00	8.50
Oregon	4.32	13.00	12.50
South Dakota	3.00 to 56.00 per acre	17.60	19.20
Texas	4.16 to 12.50	10.00	9.80

³⁰The National Agricultural Statistics Service gathers data and calculates fees per AUM and head. The price per head is used in the calculation of the federal grazing fee and is equivalent to the AUMs used by BLM and the head months used by the Forest Service. The 2004 data was used to set fees for 2005. Fees charged in 2003 were \$12.80 per AUM and \$13.40 per head.

³¹Generally, there are 17 states considered to be western. BLM primarily manages grazing in 11 western states, and the Forest Service manages grazing for its forests in 16 western states, excluding Texas.

(Continued From Previous Page)

State	State land agency (per AUM unless noted)	Average private fee (per AUM) ^a	Average private fee (per head) ^a
Utah	1.43 or 2.35	11.80	13.10
Washington	5.41 or 7.76	10.80	10.80
Wyoming	4.13	13.90	14.30

Source: State agencies and National Agricultural Statistics Service (data); GAO (analysis).

Note: The 11 western states used to calculate the BLM and Forest Service fee are Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming. The 9 Great Plains states used to calculate the Forest Service grassland fee are Colorado, Kansas, Nebraska, New Mexico, North Dakota, Oklahoma, South Dakota, Texas, and Wyoming.

^aThe National Agricultural Statistics Service gathers data on fees per AUM and per head. The per head fee is used in the PRIA fee and, because of the way that BLM and the Forest Service measure AUMs for billing purposes, corresponds to the fee per AUM charged by BLM and the Forest Service.

^bKansas and Nevada do not have grazing on state trust lands and therefore did not provide fee information.

In fiscal year 2004, state land agencies in 15 western states charged grazing fees that ranged from \$1.35 per AUM in California to \$80 per AUM in Montana and \$0.71 per acre in New Mexico to \$56 per acre in South Dakota; 2 states did not charge fees because they do not have grazing on state trust lands. As table 9 shows, most states charged more than one fee: while 4 states charged a single fee for all of their state lands, 2 states charged two fees and 9 states charged a range of fees, depending on market rates or based on counties or areas with variable vegetation. The agencies manage state trust lands to help pay for schools; the lands were set aside for this purpose when each state was created. Like the federal government, the western state agencies lease their lands for grazing, among other uses. According to Interior officials, unlike the federal government, the western state agencies have a fiduciary responsibility to obtain revenues from grazing fees on state trust lands to support schools and education systems.

Of the 15 state agencies charging fees, 6 agencies used competitive methods to determine the fair market value of their lands in fiscal year 2004; 6 used appraised prices or formulas to estimate the fair market value of their lands; and 3 used only formulas that do not start with a market price. Generally, the formulas adjusted the value of private grazing lands for different factors, such as the lack of fencing or water on state lands, or the price of beef. For example, Wyoming based its grazing fee on the average of private lease rates, as estimated by the Wyoming Agricultural Statistics Service, for the previous 5 years. The rate was then adjusted to account for changing resource conditions, market demand, and industry viability, and reduced by 20 percent to reflect contributions made by the lessee. (See app. VI for a discussion of the state fees.)

The Purpose of the BLM and the Forest Service Fee in Western States Is Not to Recover Expenditures or to Charge Market Value; Different Purposes Would Result in Different Fees

As we noted in our 1991 report on the BLM and Forest Service grazing fee, fees can vary depending on the purposes for which they are charged.³² The BLM and Forest Service fee is set in accordance with the policy of preventing economic disruption and harm to the western livestock industry. The primary purpose of the BLM and Forest Service fee is not to recover the agencies' administrative expenses. Consequently, in fiscal year 2004, the agencies spent \$132.5 million to manage their grazing programs and collected \$17.5 million in receipts, leaving a gap of about \$115 million. If the purpose of the fee were to recover expenditures and if each agency were to charge a fee that recovered its expenditures, BLM would have had to charge up to \$7.64 per AUM, and the Forest Service would have had to charge up to \$12.26 per AUM in 2004, according to our analysis of the agencies' estimated expenditures and the number of AUMs billed (7.6 million AUMs for BLM and 6.1 million AUMs for the Forest Service). While many argue that fees for grazing on federal lands should recover the agencies' expenditures, some grazing advocates argue that agencies' expenses are high and reflect inefficiencies and that the fee should not encourage the agencies' inefficient practices.

The primary purpose of the BLM and Forest Service fee formula is also not to achieve fair market value prices. Instead, the fee was designed to reflect fees charged by private ranchers by including the forage value index, while also adjusting the value to reflect the net costs of conducting ranching business. It reflects net costs by including the beef cattle price and producer prices indexes (a measure of the change in income and production expenses). While initially, the base price used in the formula represented what Congress and economists considered fair market value, the adjustments included in the formula have resulted in a fee that has not tracked private fees.³³ Consequently, while the fee charged by BLM and the Forest Service fluctuated up and down, it decreased overall by about 40 percent from \$2.36 per AUM in 1980 for BLM and \$2.41 per AUM for Forest Service to \$1.43 per AUM for both agencies in 2004. Private ranching fees

³²GAO, *Rangeland Management: Current Formula Keeps Grazing Fees Low*, GAO/RCED-91-185BR (Washington, D.C.: June 11, 1991).

³³The definition of fair market value in relation to the fee is the \$1.23 base value established in the 1966 Western Livestock Survey "added to the nonfee cost of operating on public grazing land so that the total cost of grazing on public land equals the total cost (nonfee plus private lease rate) of operating on comparable privately leased grazing land." Departments of the Interior and Agriculture, *Study of Fees for Grazing Livestock on Federal Lands* (Washington, D.C.: October 21, 1977), 4-3.

increased by 78 percent over the same period, from \$7.53 per AUM to \$13.40 per AUM.³⁴ The federal fee increased to \$1.79 per AUM in 2005. (See fig. 2.)

Figure 2: Grazing Fee BLM and the Forest Service Charged, 1980 to 2005



Source: National Agricultural Statistics Service (data); GAO (analysis).

Notes: The fee formula is $\text{Fee} = \$1.23 \times (\text{FVI} + \text{BCPI} - \text{PPI})/100$.

In 1980, BLM and the Forest Service charged \$2.36 per AUM and \$2.41 per AUM, respectively, or on average, \$2.38 per AUM. Prior to 1981, the agencies charged different fees for grazing—in 1979, they charged \$1.89 per AUM and \$1.93 per AUM, respectively. In 1980, the agencies used the PRIA formula to calculate their fees, but the formula produced a fee of \$2.77, and PRIA limited the annual increase in the fee to 25 percent. The different fees charged in 1980 were a result of the agencies applying the 25 percent increase to their 1979 fees.

If the primary purpose of the formula were to produce a fee equal to market value, the fee would likely not be the same as that charged on private or state lands for two key reasons. First, because BLM and Forest Service permits and leases are not bid competitively, the fees associated with those permits and leases are not set in the market. In lieu of a market for BLM

³⁴The fee figures are presented in nominal dollars.

and Forest Service grazing, the agencies could estimate the value of their lands based on comparable properties. However, it is generally recognized that private lands, which are leased at market prices, are not often comparable to public lands because the private lands have better forage and sources of water. The quality of forage and availability of water on state lands are considered more comparable to that on federal lands because the federal government granted some of its lands to various states when they entered the Union.³⁵ In addition to differences in the quality of soil, forage, and water resources, private grazing fees differ from fees for public lands because private landowners often provide services that are not provided on BLM and Forest Service lands. For example, private landowners may provide daily livestock care—watering, fencing, feeding, and veterinary care—as well as maintaining fences, corrals, and water tanks. In addition, lessees of private land can themselves lease the land to other users, such as hunters, and generate revenue. Moreover, public access to private lands is limited, whereas access to federal land is generally not limited. State agencies also limit access to their lands, a factor that makes their lands less comparable to BLM and Forest Service lands for purposes of setting fees.

Second, market values are difficult to use for BLM and Forest Service permits and leases because the prices ranchers have paid for their private ranches often include the capitalized value of any associated federal grazing permits and leases—called “permit value”—and advocates state that ranchers have paid full market value for the grazing permits and leases, albeit not in the form of a payment to the government.³⁶ Although Interior and USDA do not recognize grazing permits and leases issued by BLM and the Forest Service as a legal property right, the real estate market realizes the value of holding these permits and leases. As a result, it is generally recognized that while the federal government does not receive a

³⁵Originally, with the Land Ordinance, the number 16 lot of every township was reserved for that township. In 1848, the act establishing Oregon gave states in the Northwest territory sections 16 and 36 in each township. In 1894, Utah, followed in 1910 by Arizona and New Mexico, entered the nation with two additional sections reserved in each township, sections 2 and 32.

³⁶Some believe that the existence of permit value indicates that the fee does not capture the full value of federal forage. However, recent research has shown that the value of permits may be capturing other values than the income earning potential of land. That is, despite the fact that ranchers assert that they are paying equal or higher total grazing costs on public versus private lands, they have been willing to pay an additional premium to buy permits to graze on public lands, indicating nonprofit motives such as quality of life, as reasons for ranch ownership.

market price for its permits and leases, ranchers have paid a market price for their federal permits or leases—by paying (1) grazing fees; (2) nonfee grazing costs, including the costs of operating on federal lands, such as protecting threatened and endangered species (i.e., limiting grazing area or time); and (3) the capitalized permit value. Should the BLM and Forest Service charge a grazing fee that reflects market values, the ranchers' investments could be reduced accordingly, which complicates the use of the market value of the permits and leases.

Because of these difficulties in estimating and using market value, some grazing experts have suggested establishing a competitive bidding process for federal permits and leases, as has been done for the McGregor Range, an Air Force bombing range. BLM manages grazing on this range using competitive bidding to set prices. In 2004, BLM received fees ranging from \$5.00 to \$14.50 per AUM for several leases that it offered at auction. (See app. V for more details.) Experts acknowledge, however, that significant changes to the current grazing system would be needed to allow competition, with uncertain results. In particular, range experts and agency officials point out a potential increase in administrative activities and expenditures for items such as changing operators, start-up time, and law enforcement that could occur with greater BLM and Forest Service involvement in competitive bidding. In addition, some change in the preference system on BLM and Forest Service lands might need to occur to allow competitive bidding. However, some states have implemented a form of competitive bidding while retaining preference. For example, New Mexico allows ranchers with preference to meet the best offer that results from competing the lease. Finally, range experts and agency officials point out that the effect of competitive bidding on grazing receipts collected could, in fact, reduce receipts because some allotments could be less competitive than others, given their location and quality of resources. Others stated that increased competition could reduce the economic opportunities for some smaller permittees and lessees.

Concluding Observations

It is difficult to identify the full cost of grazing on federal lands. Many federal agencies have their own grazing programs, but other agencies support grazing in carrying out their responsibilities. Nevertheless, an analysis of federal expenditures and receipts provided by the agencies demonstrates that BLM and the Forest Service are spending much more on grazing than they are generating in receipts. Moreover, the existence of permit value indicates that while ranchers may have paid full value for grazing privileges, the agencies have not captured these payments in their

grazing fee. These shortfalls reflect legislative and executive branch policies to support local economies and ranching communities by keeping grazing fees low. BLM and the Forest Service are charging a fee that supports this purpose.

The current fee for livestock grazing has not been changed significantly since it was first established a quarter century ago, largely because of controversy over the purpose of the fee and the role of grazing in contributing to ranching economies and communities and in degrading rangeland ecosystems. Although a budgetary analysis such as the one we conducted does not consider economic, environmental, or societal costs and benefits, it does demonstrate the need to periodically reexamine programs to assess their relevance and relative priority for a changing society, including how much of the program's financing should be paid for by those who benefit most directly. Taking a hard look at existing programs and carefully considering their goals and their financing is a challenging task. However, faced with a growing and unsustainable fiscal imbalance, the government cannot accept all of its existing programs, policies, and activities as "givens." Now, as in the 1990s, tightened federal budgets and a persistent federal deficit create the need to examine federal programs that spend more funds than they generate in receipts and to determine whether the purposes of these programs warrant increasing user fees.

Although other federal agencies' grazing programs are much smaller than BLM's and the Forest Service's, they demonstrate the application of competitive and market-based approaches to charging user fees for grazing programs and recovering some program expenditures. Depending on the approach taken to set and implement a grazing fee for lands managed by BLM and the Forest Service, the federal government could close the gap that exists between those programs' grazing expenditures and receipts. But any change in the current fee may necessitate that Congress reconsider the purpose of the fee and policy trade-offs of different fees. In addition, an evaluation of the difficulties of implementing the chosen fee would need to be conducted in order to understand the consequences for the agencies' programs and expenditures and to deal fairly with such issues as preference and permit value.

Agency Comments

We provided USDA, Commerce, DOD, DOE, Interior, and Justice with a draft of this report for review and comment. Interior and the Forest Service provided written comments (see apps. VII and VIII). DOD did not provide official written comments, but the Air Force and Army provided technical

comments, which we incorporated as appropriate. DOE also did not provide official written comments but provided technical comments, which we incorporated as appropriate. Commerce and Justice did not have comments on the draft report.

In its comments, Interior did not agree nor disagree with the findings in the report. In general, the department stated that the report accurately recognizes that differences in resource conditions and legal requirements can cause variations in livestock grazing fees and pointed out the difficulty in capturing the costs of grazing programs. However, Interior stated that the report did not sufficiently discuss significant indirect benefits from grazing to other BLM programs that are difficult to quantify. We do not agree with this point. We believe that the report presents the facts about BLM's grazing program as described in many different documents BLM provided to us and as discussed in multiple meetings. Interior also provided several specific comments clarifying the text of the report. These comments and our response can be found in appendix VII. In addition to its comments on BLM's grazing program, the department enclosed technical comments on the U.S. Fish and Wildlife Service and Reclamation programs, which we incorporated as appropriate.

The Forest Service provided coordinated comments for USDA. The Forest Service neither agreed nor disagreed with the findings in the report. The agency stated that the report accurately recognizes that the Forest Service fee is set in accordance with an executive order that maintains the fee formula established in FLPMA, as amended by PRIA. Further, it stated that the report accurately recognizes that the fee is not related to the cost of Forest Service administration of the grazing program. In addition to these comments, the Farm Services Agency and the National Agricultural Statistics Service within USDA provided technical comments, which we included as appropriate.

As agreed with your offices, unless you publicly announce the contents of this report earlier, we plan no further distribution of this report until 30 days from the date of this letter. At that time, we will send copies of this report to interested congressional committees; the Secretaries of Agriculture, Commerce, Defense, Energy, and the Interior; the Attorney General of the United States; the Administrator of the Environmental Protection Agency; the Director of the Office of Management and Budget;

the directors of the 17 state land agencies; and other interested parties. We will also make copies available to others upon request. In addition, the report will be available at no charge on the GAO Web site at <http://www.gao.gov>.

If you or your staff have any questions, please contact me at (202) 512-3841 or nazzaror@gao.gov. Contact points for our Offices of Public Affairs and Congressional Relations may be found on the last page of this report. GAO staff who made major contributions to this report are listed in appendix IX.

Robin M. Nazzaro

Robin M. Nazzaro
Director, Natural Resources
and Environment

List of Requesters

The Honorable Nick Rahall
Ranking Minority Member
Committee on Resources
House of Representatives

The Honorable Earl Blumenauer
House of Representatives

The Honorable Raúl Grijalva
House of Representatives

The Honorable Rush Holt
House of Representatives

The Honorable Jim McDermott
House of Representatives

The Honorable Christopher Shays
House of Representatives

Objectives, Scope, and Methodology

We provided information on the (1) extent of livestock grazing on, and program purposes for, land managed by 10 federal agencies; (2) amount spent in fiscal year 2004 by these agencies and other federal agencies that have grazing-related activities, to manage livestock grazing on public lands; (3) total receipts collected for grazing privileges by the 10 federal agencies with grazing programs and the amounts disbursed to counties, states, or the federal government; and (4) grazing fees charged by the 10 federal agencies, western states, and private ranchers, and the reasons for any differences among the fees.

We performed the majority of our work at the 10 federal agencies that have programs to allow private ranchers to graze livestock on portions of the land they manage. These agencies were the Department of the Interior's (Interior) Bureau of Land Management (BLM), National Park Service, U.S. Fish and Wildlife Service, and Bureau of Reclamation (Reclamation); the U.S. Department of Agriculture's (USDA) Forest Service; the Department of Defense's (DOD) Army, Army Corps of Engineers (Corps), Air Force and Navy; and the Department of Energy (DOE). We also performed work at other federal agencies that have grazing-related activities. These agencies are Interior's U.S. Geological Survey (USGS) and Solicitor's Office; USDA's Agricultural Research Service; Animal and Plant Health Inspection Service, Cooperative State Research, Education and Extension Service, Farm Service Agency, National Agricultural Statistics Service, Risk Management Agency, Natural Resources Conservation Service, and Office of General Counsel; the Environmental Protection Agency; the Department of Commerce's National Marine Fisheries Service; and the Department of Justice.

To determine the purposes of livestock grazing programs managed by the 10 federal agencies, we reviewed authorizing legislation and agency policies and regulations, and we interviewed agency headquarters and field office officials. Through our review of legislation, policies, and regulations, we determined that we would not include Alaska in our analysis because it is treated differently under grazing law. We identified field offices to visit with the goal of visiting as many agencies as possible in an efficient manner. We visited at least one field office for every agency except for the Corps, Navy, and DOE. We visited BLM field offices in Medford, Oregon, and Las Cruces, New Mexico; a Forest Service office in Santa Fe, New Mexico; the National Park Service's Dinosaur National Monument in Colorado and Utah; U.S. Fish and Wildlife Service's Klamath Basin Wildlife Refuge Complex in northern California and southern Oregon; Reclamation's Albuquerque Area Office in New Mexico; Cannon Air Force

Base in Clovis, New Mexico; and Fort Hood Army Installation in Killeen, Texas.

To determine the extent of grazing on land managed by the agencies, we obtained agency data for 2004 on acres and animal unit months (AUM). BLM maintains a centralized Rangeland Administration System that formally tracks and reports acres and AUMs on its lands as well as on other agencies' lands (e.g., DOE's Idaho National Laboratory and various Reclamation locations) where it manages grazing activity on behalf of these agencies. The Forest Service uses an information system, called INFRA, to centrally track and formally report acres, head months, and AUMs. To determine if the AUM and acreage data produced by BLM's Rangeland Administration System and Forest Service's INFRA system were sufficiently reliable for use in this report, we interviewed system managers about the processes used to manage the data in the systems and conducted a "walk-through" of the system with these managers. In addition, we tested the completeness and accuracy of a selection of AUM and acreage data using fiscal year 2004 system reports at the BLM field and Forest Service offices. We asked field office officials to provide us their 2004 report that specifically showed, by permit or lease, the number of AUMs authorized and billed and the fee charged. We reviewed all the files at agencies with smaller grazing programs—those with up to 25 permits or leases at an office—and selected 10 percent of files at the two agencies that had large grazing programs—250 and 500 allotment files per office. We then verified that the data in the systems were the same as data in the files by tracing the data through actual permit and lease documents, bills, and receipts showing that payment had been submitted. We determined—based on these reviews and, if necessary, follow-up interviews with local managers—that the data reported were reliable for purposes of this report.

Unlike BLM and the Forest Service, the National Park Service, U.S. Fish and Wildlife Service, Reclamation, and DOD do not have similar management information systems that formally track and centrally report acres and AUM data on specific livestock grazing activities. For these agencies, we collaborated with agency headquarters and field office officials to design and test a data collection instrument tailored for each agency, which we sent to field offices. To design and test the data collection instruments, we visited several agencies' field offices and followed the same process we used at BLM and the Forest Service to sample files, review relevant documents, track AUM data, and interview local officials to verify the completeness and accuracy of data that they could submit to us. We performed this work at the Dinosaur National Monument, Klamath

Basin Wildlife Refuge Complex, Reclamation's Albuquerque Area Office, Cannon Air Force Base, and Fort Hood Army Installation. To help ensure the reliability of the data we received from the agencies, we reviewed the data to determine whether they were complete and accurate. When we found data that were missing or appeared to be inaccurate, we called appropriate agency officials to discuss, and if necessary, correct the data. Based on these reviews and appropriate follow-up interviews, we determined that the data reported were sufficiently reliable for purposes of this report.

To determine the expenditures the 10 federal agencies incurred in fiscal year 2004 to manage specific livestock grazing on federal lands they manage, total receipts collected for grazing privileges by these agencies, and the amounts disbursed to counties, states, or the federal government, we obtained agency expenditure, receipt, and disbursement data for fiscal year 2004. BLM maintains an Activity Based Costing System that centrally tracks and formally reports expenditures on livestock grazing activities, the receipts that grazing generates, and amounts disbursed. BLM officials used this system to identify the amount of direct and indirect expenditures the agency incurred for livestock grazing activities. The Forest Service does not have a cost-accounting system, but rather reports expenditures for items in its budget, called budget line items. The agency used expenditure reports for these line items, in addition to its WorkPlan system (which shows the forests' intended work plans at the beginning of a fiscal year) to estimate the amount of expenditures on grazing activities in fiscal year 2004. The Forest Service direct expenditures include expenditures from the Forest Service grazing line item, expenditures from its watershed and vegetation line item, and estimated expenditures from its General Management and other cost pools. Because the watershed and vegetation line item can be spent for all programs and not just the grazing program, the Forest Service allocated a portion of these expenditures—11 percent—using WorkPlan, which is a tool for planning and budgeting program work at the forest level. The Forest Service uses six cost pools to allocate indirect activities and expenditures: General Management, Public Communications, Ongoing Business Services, Common Services, Office of Worker's Compensation, and Unemployment Compensation Insurance. The General Management pool and some of the activities in the Common Services pool are considered direct or support costs, rather than indirect costs. These are included as direct expenditures. To estimate expenditures from its General Management and other cost pools, the agency attributed a share of the expenditures related to the amount of grazing and related watershed and vegetation funds that were put into the fund for the fiscal

year. We did not validate the data provided by the agencies' or test their financial management and accounting systems. We did contact USDA's and Interior's Office of Inspector General and representatives of KPMG, a private contractor that annually audits the agencies' financial statements, to determine if there was any reason we could not use expenditure data in this report. There were none. In addition, we reviewed the agencies' internal controls over grazing receipts through our testing of the agencies' grazing files and AUM data.

Unlike BLM and the Forest Service, the National Park Service, U.S. Fish and Wildlife Service, Reclamation, and DOD services do not all formally track and centrally report specific livestock grazing expenditures, receipts, and disbursements. Using the same data collection instrument described above to obtain acres and AUM data from these agencies' field units, we also requested their estimates of expenditures and receipts. In addition, we asked headquarters officials to query their financial management and accounting systems in an effort to extract specific receipt and disbursement data related to livestock grazing activities. When necessary, we conducted follow-up interviews with agency headquarters and field office officials to ensure that the data were reliable enough for use in this report. We did not validate these financial management and accounting systems.

To identify livestock grazing expenditures that other federal agencies may incur to support livestock grazing, we first developed a list of agencies and activities that are conducted that are related to grazing on public lands. To develop this list, we reviewed reports about livestock grazing on public lands, interviewed BLM and Forest Service officials, and interviewed experts at the Society for Range Management,¹ as well as the author of a recent study on the costs of the federal grazing program.² We then contacted the agencies to confirm that the activities they conduct are related to grazing and are conducted on public lands; if the agencies conducted activities that support grazing on public lands, we then requested estimated expenditures for fiscal year 2004. To that end, we

¹The Society for Range Management is an association of range management specialists that represents nearly 4,000 members. Its mission is to promote and enhance the stewardship of rangeland ecosystems and renewable range resources, with an aim to meet human needs through scientific research and policy.

²Karyn Moskowitz and Chuck Romaniello, *Assessing the Full Cost of the Federal Grazing Program* (Tucson, Arizona: October 2002).

contacted officials at USGS; USDA's Agricultural Research Service, Animal and Plant Health Inspection Service, Cooperative State Research, Education, and Extension Service, Farm Service Agency, National Agricultural Statistics Service, Natural Resources Conservation Service, and Risk Management Agency; and the Environmental Protection Agency. We asked these officials to estimate, if possible, the expenditures they incur in support of livestock grazing activities. To determine agency expenditures on consultations for threatened and endangered species, we requested the data from the two agencies involved, the U.S. Fish and Wildlife Service and the National Marine Fisheries Service. To determine agency expenditures for litigation related to livestock grazing we contacted the Department of Justice, Interior's Office of the Solicitor, and USDA's Office of General Counsel. Their representatives estimated the cost of their time devoted to livestock grazing cases in fiscal year 2004 and identified that no payments were made for attorney fees in the same period. The National Park Service, U.S. Fish and Wildlife Service, Reclamation, and DOD services reported that they were not involved in any litigation related to livestock grazing in fiscal year 2004.

To determine the fees charged in 2004 by the 10 federal agencies, western states, and private ranchers and the reasons for any differences among the fees, we relied on several different sources. For the fees charged by BLM and the Forest Service, we contacted BLM and Forest Service officials, who provided us with 2004 fee and an explanation of the formula used to calculate the fee. We also discussed the formula and its components with the staff of the National Agricultural Statistics Service. We also reviewed historical studies of the formula and fees resulting from the formula. We gathered National Park Service, U.S. Fish and Wildlife Service, Reclamation, and DOD service fees using the data collection instrument described above and also gathered information on the methods used to establish the fees. For agencies that provided fee data as a per-acre price, we converted the fees to a per-AUM price by totaling the receipts and any offsets to receipts and dividing the total by the number of AUMs approved for use on that land. We reviewed agencies' discussion of their user fees in their Chief Financial Officers' Annual Reports, but we did not review the agencies' compliance with the Independent Offices Appropriation Act or OMB *Circular A-25*, which lay out conditions under which user fees can be charged.

To determine the fees that the 17 western states charged ranchers in 2004 to graze on their state lands, and the basis for their fees, we conducted telephone interviews of program officials in the 17 states using a

semistructured interview format. To determine the fees private ranchers charged in 2004 to graze on their private lands, we used the results reported by USDA's National Agricultural Statistics Service, which conducts a survey of, among other things, fees charged by private ranchers for livestock grazing on their private lands in the 17 western states. The agency's staff calculates average fees for each state and the average fees charged in different groups of Great Plains and western states: 9 Great Plains states, 11 western states, 16 western states, and 17 western states. We also interviewed the National Agricultural Statistics Service officials about the agency's survey methodology for gathering data on private grazing leases and the calculation of the BLM and Forest Service fee components.

To identify additional factors that should be considered in evaluating federal grazing expenditures and fees, we conducted an extensive search of studies that go beyond a limited federal budgetary analysis of livestock grazing activities and attempted to identify social, environmental, and other economic costs and benefits that both advocates and opponents of grazing use to make their respective arguments. We also interviewed experts at New Mexico State University, Oregon State University, Colorado State University, and University of Montana who have conducted relevant research to obtain their views of these various livestock grazing issues, as well as issues related to fees.

We conducted our work between August 2004 and July 2005 in accordance with generally accepted government auditing standards.

Additional Factors in Evaluating Federal Grazing Expenditures and Revenues

To place the budgetary evaluation presented in this report in a larger context, this appendix briefly discusses conflicting views on key effects of federal lands grazing: local economic development, rural community and quality of life values, and rangeland ecosystems and management. The purpose of the appendix is to present the conflicting views on grazing-related issues and as such we did not verify the accuracy of the positions and statements presented by advocates and opponents of grazing. A comprehensive analysis of the effects should quantify and capture not only the budgetary expenditures and receipts discussed in this report but also the impact on regional and local economic development and the economic costs and benefits—which are often unquantified—to society. However, a comprehensive evaluation is not yet possible because, despite years of extensive research and evaluation, the exact nature of many of these effects is still unknown, unresolved, or unquantifiable. For example, opponents of grazing believe that grazing diminishes ecosystem values by reducing biodiversity and disrupting wildlife habitats, the lost value of which is borne by the nation and future generations and which the federal budget and agencies' budgets cannot entirely capture.¹ On the other hand, advocates of grazing believe that the government and the public benefit from livestock grazing because it reduces the federal government's cost for land management and contributes to preserving open space, both values that the federal budget does not capture.

Implications of Grazing for Local Economic Development

According to grazing advocates, ranching on federal land is critical to local economies, particularly in the western states, and many small towns across the West that depend on local ranchers' business would not survive without federal grazing. In these localities, many ranchers who rely on public lands could be driven out of ranching because, without access to public lands, their ranches would not be economically viable. In addition, studies have shown that grazing is beneficial to rural economies because it provides them with a more diverse economic base in conjunction with other compatible land uses, such as recreational activities.² Advocates also note

¹To the extent that an agency's budget allocates funds for monitoring, planning, and protecting the resources, these costs are reflected in their budgets. However, when the level of funds and activities are not sufficient to restore the resources, the damages remain a cost to the society.

²David T. Taylor, James G. Thompson, and Tim Darden, "Rural Communities and the Changing Rangeland Users," in *Current Issues in Rangeland Resources Economics* (Salt Lake City, Utah: Utah Agricultural Experiment Station and Utah State University, 2004).

that while some economic studies indicate that grazing on federal land is of minimal economic importance, these studies only consider grazing's dependence on public forage on an average annual basis and not on a seasonal basis. They point out that ranchers rely on forage from federal lands during certain parts of the year, particularly during the summer and fall grazing season, and that ranchers' dependence on federal lands becomes quite important when only the grazing season is taken into account.

In contrast, opponents point to studies showing that, for many of the western states, federal lands provide only a small percentage of the total forage needed to support ranchers' herds and do not contribute significantly to local economic production and income. For example, one study that examined the reliance of ranchers on federal land in 11 western states showed that only \$1 of every \$2,500 of income (0.04 percent) earned in those states is directly associated with grazing on federal lands.³ This minimal contribution also holds steady in more grazing-dependent counties, according to this study. Out of 102 such counties analyzed, only 11 were found to have more than 1 percent of total income associated with grazing on public lands.

Implications of Grazing on Quality of Rural Communities and Rancher's Life

The budgetary evaluation of grazing on public lands does not reflect the contribution of grazing to the quality of life in rural communities as well as the contribution to individual ranchers' quality of life. Advocates point to the value of preserving the tradition and culture of rural ranching communities as an important contribution of grazing. These advocates believe that because federal land grazing at current rates provides the support ranchers need to stay in business, grazing prevents a growing trend toward urbanization and sprawl in rural areas. The development of ranch lands reduces the availability of open space for scenic pleasure and recreational opportunities, reduces wildlife habitat, and increases the infrastructure and tax burden on nearby communities. Further, federal managers point out that their support of ranchers and rural communities maintains a buffer around federal lands—for example, military lands—preventing development along these boundaries.

³Thomas M. Power, "Taking Stock of Public Lands Grazing: An Economic Analysis," in *Welfare Ranching: The Subsidized Destruction of the American West* (Washington, D.C.: Island Press, 2002).

Similarly, grazing advocates point out the importance of grazing to the quality of life for individual ranchers, which is another factor not captured by a budgetary analysis. Studies have documented the importance of quality of life (consumptive value) in ranchers' decisions to purchase or remain in business despite economic pressures. These studies have compared the future earning potential of the land from ranching with the market values for ranches in many rural communities and found that ranchers have been willing to accept rates of return on their investment that are below market value, which indicates that the desire to own a ranch is not motivated entirely by profit, but also by the less tangible benefit on the quality of life that the rural lifestyle offers.⁴

While the contribution of ranching to the quality of life and well being of a segment of society is widely recognized, grazing opponents question the role of the government in protecting ranchers' social or economic way of life at a cost to all taxpayers. In the opponents' view, preserving the heritage of "western cowboys" by allowing them the use of public lands is a subsidy to the livestock industry. The opponents question the use of continuing subsidies, rather than a functioning free market, and question the choice of subsidizing one lifestyle or chosen profession over another—for example, teachers.

Opponents also disagree with the argument that grazing subsidies are essential to preserving open spaces and stopping development. They point out that many factors, such as an individual rancher's wealth and commitment to ranching as a way of life, will ultimately influence the decision to continue ranching. Population growth and demand for housing will widen the disparity in land values between grazing and development and put some ranchers—especially those facing financial pressures—in a position to sell. However, opponents note that the replacement of cows with condominiums is not a foregone result of changes in grazing policy. Subdividing and developing ranch land is primarily driven by market conditions—demand—for the land, and market conditions for subdividing the ranch lands is far from uniform across the West. For example, it would not be economically feasible to develop lands in some remote areas of the West. However, acknowledging the reality of development of the ranch

⁴Studies have also shown that despite equal or higher total grazing costs on public versus private lands ranchers have been willing to pay an additional premium to buy permits to graze on public lands that supports the quality of life and nonprofit motives for ranch ownership.

lands in some geographic areas, opponents believe that subsidized grazing on public lands is neither an efficient nor an effective means of preserving open spaces. They recommend other tools, such as zoning regulations or land purchases through conservation trusts, to more effectively protect the land from urban sprawl and development.

Implications of Grazing for Rangeland Ecosystems and Management

According to grazing advocates, ranchers are the principal managers of federal land, and if they cease operation, federal agencies would have to pay others to manage these lands, thereby raising budgetary costs to the government. By grazing the land, ranchers help to maintain rangeland ecosystems—particularly those east of the Rocky Mountains—that developed historically and naturally with herbivory by wild animals such as buffalo, antelope, deer, and elk. According to advocates, grazing also helps to manage weeds, including invasive plant species, and control fires by preventing excessive biomass buildup or by reducing the intensity of fires that do start—expenses that would otherwise shift to federal agencies. For example, advocates maintain that sheep grazing reduces the need to use herbicides on the range because the sheep eat noxious plants that other animals avoid.⁵ Advocates also contend that ranchers provide a valuable service to federal agencies by reporting problems on public lands, such as fires and illegal activities, and assisting in search-and-rescue operations.

Furthermore, grazing advocates assert that modern rangeland management facilitates the maintenance and health of the land because ranchers understand the science behind ranching and make decisions that preserve and improve the health of the rangeland, including wildlife habitat.⁶ In general, they point to the increased number of wildlife and game animals in recent years on the lands with ranch and water developments. For example, one study has shown that biodiversity for vegetation and animals is higher on rangelands managed for grazing than on small ranches.⁷ They

⁵See for example “Sheep and the Environment: The Facts on Sheep Ecology,” prepared by American Sheep Industry Association, 2005.

⁶See for example, “Cattle and Beef Handbook: Environment,” National Cattlemen’s Beef Association; www.beef.org/ncbenvironment.aspx.

⁷The study is based on a random survey of land outside urban areas and represents the rural land-use gradient, including preserves, ranches, and low-density development. Jeremy D. Maestas, Richard L. Knight, and Wendell C. Gilgert, “Biodiversity Across a Rural Land-Use Gradient,” *Conservation Biology*, Vol. 17, No. 5 (October 2003).

say that water improvements made by ranchers are the reason behind enhanced wildlife habitat and numbers and contribute to lower maintenance costs by the agencies.⁸

To the contrary, grazing opponents argue that grazing has contributed to, and increased the amount of, the federal government's land management costs. For example, they note, by eliminating grass and low-lying vegetation in ponderosa pine forests, grazing has contributed to increased density of conifer trees and shrubs and made these forests more prone to large, intense fires that are costly to fight. Grazing opponents also note that grazing contributes to the spread of invasive species, thereby increasing agencies' costs for managing their rangelands. For example, opponents state that livestock transport seeds; weaken and remove native plants, such as grasses; disturb the soil; and help invasive species to take hold and grow.

Grazing opponents also note that grazing in general and overgrazing in particular, have harmed plants and wildlife on federal lands by exposing soils to erosion, disrupting normal wildlife behavior, and reducing biodiversity. For example, an environmental group states that grazing has contributed to the listing of 22 percent of federal threatened and endangered species.⁹ Furthermore, livestock can be detrimental to native wildlife because they can transmit diseases, compete for food, disrupt normal behavior patterns, or damage habitat.¹⁰ For example, because some invasive plants can better tolerate intensive grazing than most native plants, they can prosper and drive out other native plants. The U.S. Fish and Wildlife Service has argued that grazing can cause habitat degradation and disrupt normal behavior patterns of wildlife such as breeding, feeding,

⁸Interview with Sam Albrecht, Executive Vice President, Society for Range Management, et al., Lakewood, Colorado, September 2004.

⁹See for example www.sierraclub.org/grazing, based on the work by D.S. Wilcove, D. Rothstein, J. Dubow, A. Phillips, E. Losos, "Quantifying Threats to Imperiled Species in the United States," *BioScience*, Vol. 48, No. 8 (August 1998).

¹⁰In general, an economically efficient mix of uses requires adjusting the size and mixture of livestock and wildlife relative to the values these different animals provide. In one article comparing value of forage on public lands for wildlife and livestock uses, the authors concluded that the marginal value of forage for deer and elk is competitive with the forage value for cattle ranching in Challis, Idaho area. John Loomis, Dennis Donnelly, and Cindy Sorg-Swanson, "Comparing the Economic Value of Forage on Public Lands for Wildlife and Livestock," *Journal of Range Management*, Vol. 42, No. 2 (March 1989).

or sheltering.¹¹ For example, livestock management practices, such as fencing rangelands, can create obstacles for many native wildlife species, limiting their movement in search of food and shelter. Similarly, livestock protection has played a large role in eliminating native predators, which are often killed by private ranchers or federal agencies to protect the livestock. Finally, the opponents note that livestock grazing is also a threat to water quality when, for example, the livestock trample stream banks, causing them to erode and increase sedimentation or spread infectious water-borne diseases to water supplies.¹²

¹¹See, e.g., *Arizona Cattle Growers Assn. v. Fish and Wildlife Service*, 273 F.3d 1229 (2001) (The court found that the record did not support the FWS claims in this particular case.) But see, e.g., *Palila v. Hawaii Dept of Land and Natural Resources*, 852 F.2d 1106, (9th Cir. 1988) (sheep grazing constituted a “taking” of palila birds under the Endangered Species Act, since although sheep do not destroy full-grown mamane trees, they do destroy mamane seedlings, which will grow to full-grown trees, on which the palila feeds and nests).

¹²Lynn Jacobs, *Waste of the West: Public Lands Ranching* (Tucson, Arizona: 1991).

Detailed Grazing Data for Bureau of Land Management and the Forest Service

This appendix provides detailed information on grazing permits and leases on lands managed by BLM and the Forest Service. The first section of this appendix provides information on acres available for grazing on lands the agencies manage, the AUMs approved for grazing, and the AUMs billed in fiscal year 2004 for BLM and grazing year 2004 for the Forest Service. The second section categorizes BLM and Forest Service permits and leases by size.

Acres and AUMs of Grazing

This section provides a snapshot of the grazing that occurred on BLM and Forest Service lands in 2004. The acres of BLM and Forest Service land available for grazing each year can change, depending on the results of environmental assessments conducted on grazing allotments; and the amount of grazing that is allowed each year can change, depending on annual assessments of forage and range conditions. Both agencies measure the number of acres of their lands available for grazing by allotment each year, but the two agencies use different terms to measure the amount of grazing. BLM calls this amount “active” or “authorized,” and the Forest Service calls this amount “permitted.” Similarly, BLM refers to the amount of grazing that it bills for annually—which can vary from the amount it authorizes because of range or climate conditions—as “billed,” and the Forest Service refers to this amount of grazing as “authorized.” We use the term “AUMs Approved” to refer to the amounts of grazing authorized by BLM and permitted by the Forest Service and “AUMs Billed” to refer to the amount of grazing for which BLM billed ranchers and the amount of grazing authorized each year on Forest Service lands. Table 10 shows the acres, AUMs approved, and AUMs grazed for BLM’s field offices in fiscal year 2004.

Appendix III
Detailed Grazing Data for Bureau of Land
Management and the Forest Service

Table 10: BLM Data on Acres and AUMs, by Field Office for Fiscal Year 2004

State	Acres	AUMs approved	AUMs billed
Arizona			
Arizona Strip	2,250,219	179,463	76,785
Kingman	1,959,713	141,983	78,091
Phoenix North	1,958,357	117,487	73,945
Safford	1,114,283	133,786	86,636
Tucson	481,936	57,272	35,754
Yuma	190,348	29,924	2,751
Subtotal	7,954,856	659,915	353,962
California			
Alturas	361,107	52,517	26,943
Arcata	27,904	3,389	2,137
Bakersfield	243,757	95,407	23,981
Barstow	612,013	9,154	5,873
Bishop	307,036	36,466	9,416
Eagle Lake	971,096	51,937	28,968
El Centro	30,949	2,047	1,033
Folsom	36,073	5,184	3,995
Hollister	108,893	27,958	12,410
Needles	631,222	18,451	3,695
Palm Springs - South Coast	74,887	3,790	1,652
Redding	27,716	5,902	5,811
Ridgecrest	829,818	15,680	12,682
Surprise	1,399,562	92,335	56,975
Ukiah	10,290	788	650
Subtotal	5,672,323	421,005	196,221
Colorado			
Canyon Ancients National Monument	139,120	9,241	2,963
Columbine	23,559	2,598	1,956
Dolores	335,872	23,052	9,832
Glenwood Springs	446,724	45,806	27,933
Grand Junction	982,731	112,829	28,564
Gunnison	349,141	36,262	14,198
Kremmling	276,603	35,317	24,762
La Jara	139,890	13,386	2,836
Little Snake	1,231,411	144,685	70,339

**Appendix III
Detailed Grazing Data for Bureau of Land
Management and the Forest Service**

(Continued From Previous Page)

State	Acres	AUMs approved	AUMs billed
Pagosa Springs	2,841	457	276
Royal Gorge	392,456	33,674	15,547
Saguache	174,665	17,149	6,266
Uncompahgre	668,685	52,349	19,049
White River	1,428,982	128,145	86,548
Subtotal	6,592,680	654,950	311,069
Idaho			
Bruneau	1,392,635	128,355	94,329
Burley	826,791	140,823	88,984
Challis	660,597	52,357	28,568
Cottonwood	88,852	6,210	5,237
Four Rivers	1,063,834	144,925	95,414
Jarbridge	1,480,906	190,256	140,764
Owyhee	1,197,199	123,071	95,608
Pocatello	532,269	85,774	66,790
Salmon	427,273	65,605	44,035
Shoshone	1,491,667	208,121	108,784
Upper Snake River	1,593,666	206,686	130,030
Subtotal	10,755,689	1,352,183	898,543
Montana			
Billings	312,738	55,044	45,023
Butte	228,267	23,809	17,313
Dillon	793,268	109,913	63,888
Glasgow	990,870	144,782	135,472
Havre	564,309	90,819	69,894
Lewistown	791,289	125,777	119,232
Malta	1,040,872	176,069	155,459
Miles City	2,712,286	550,211	490,444
Missoula	80,703	5,273	5,190
North Dakota	51,537	9,216	9,610
South Dakota	272,392	75,154	66,658
Subtotal	7,838,531	1,366,067	1,178,183
New Mexico			
Carlsbad	1,891,062	380,988	229,359
Farmington	1,171,014	121,231	75,075
Las Cruces	4,299,298	632,369	355,623
Rio Puerco	864,392	132,469	76,336

**Appendix III
Detailed Grazing Data for Bureau of Land
Management and the Forest Service**

(Continued From Previous Page)

State	Acres	AUMs approved	AUMs billed
Roswell	1,487,960	328,005	204,781
Socorro	1,476,144	229,544	172,444
Taos	343,225	44,776	20,760
Subtotal	11,533,095	1,869,382	1,134,378
Nevada			
Battle Mountain	6,174,963	260,745	168,679
Carson City	3,340,103	171,291	69,430
Elko	6,751,609	708,016	383,798
Ely	10,412,518	523,504	177,090
Las Vegas	166,391	0 ^a	2,311
Tonopah	4,621,982	130,435	57,207
Winnemucca	7,863,246	335,494	216,972
Subtotal	39,330,812	2,129,485	1,075,487
Oregon			
Andrews	1,635,153	96,337	71,972
Ashland	115,388	9,002	7,233
Baker	372,139	50,117	40,137
Border	88,125	12,161	9,906
Butte Falls	76,186	5,100	2,547
Central Oregon	425,877	64,348	20,793
Coos Bay	541	49	14
Deschutes	543,228	56,417	26,630
Jordan	2,507,713	186,221	154,751
Klamath Falls	172,184	13,401	10,252
Lakeview	2,865,315	164,536	111,535
Malheur	2,070,694	226,719	158,352
Roseburg	11,879	743	0
Three Rivers	1,743,822	153,086	105,797
Wenatchee	158,093	19,810	20,211
Subtotal	12,786,337	1,058,047	740,130
Utah			
Cedar City	1,853,636	148,428	66,747
Fillmore	4,160,071	262,063	138,351
Grand Staircase-Escalante National Monument	1,301,225	75,544	17,009
Kanab	234,400	18,416	5,946
Moab	1,559,695	89,426	28,837
Monticello	1,991,216	78,649	35,707

Appendix III
Detailed Grazing Data for Bureau of Land
Management and the Forest Service

(Continued From Previous Page)

State	Acres	AUMs approved	AUMs billed
Price	1,921,523	100,267	35,568
Richfield	2,126,747	103,553	45,484
Salt Lake	2,215,951	175,066	116,318
St. George	470,103	28,428	10,853
Vernal	1,486,240	149,493	52,602
Subtotal	19,320,807	1,229,333	553,422
Wyoming			
Buffalo	734,825	104,536	99,081
Casper	1,268,671	183,046	163,232
Cody	653,735	78,981	30,229
Kemmerer	1,449,185	152,469	111,661
Lander	2,243,482	275,961	162,731
Newcastle	284,741	48,854	47,733
Pinedale	934,802	106,574	63,265
Rawlins	3,044,835	457,546	267,651
Rock Springs	3,553,435	306,755	137,876
Worland	1,748,793	236,064	109,591
Subtotal	15,916,504	1,950,786	1,193,050
Total	137,701,634	12,691,153	7,634,445

Source: BLM (data); GAO (analysis).

^aPermits can be issued for ephemeral rangeland, which refers to areas of the Hot Desert region that do not consistently produce enough forage to sustain a livestock operation, but from time to time, produce sufficient forage to accommodate livestock grazing. Such permits do not have AUMs designated, but grazing is approved and billed.

Table 11 shows the acres of grazing available, approved AUMs, and billed AUMs in grazing year 2004 for Forest Service administrative offices and grasslands.¹ The data on acres include acres in active and vacant allotments but not allotments that have been closed that are not available for grazing. The data on AUMs include data that the Forest Service calls “head months.” Unlike BLM, the Forest Service uses two methods to tally the amount of grazing that occurs—AUMs and head months. The agency uses the term AUM to refer to the amount of forage grazed by livestock, while it uses the term head months to refer to the number of livestock (head) that are grazed and that are subject to billing. We used the Forest Service head month data

¹The Forest Service has 123 administrative offices, which manage 155 proclaimed national forests and 20 national grasslands. National grasslands are listed under the administrative units with which they are associated.

Appendix III
Detailed Grazing Data for Bureau of Land
Management and the Forest Service

because they are equivalent to the BLM's data on AUMs, but we used the term AUM to simplify the comparison with BLM and other agencies' grazing data.

Table 11: Forest Service Data on Acres and AUMs, by Forest and Grassland, Grazing Year 2004

Regions	Acres ^a	AUMs approved ^b	AUMs billed ^b
Region 1, Northern Region			
Beaverhead-Deerlodge National Forest	2,446,004	200,149	169,055
Bitterroot National Forest	227,390	4,546	3,017
Idaho Panhandle National Forest	78,453	5,208	5,208
Clearwater National Forest	179,257	9,339	6,167
Custer National Forest	687,942	164,343	150,927
Dakota Prairie National Grasslands (includes Cedar River, Grand River, Little Missouri, and Sheyenne National Grasslands)	1,250,080	517,929	56,927
Flathead National Forest	126,006	2,145	1,872
Gallatin National Forest	598,711	30,646	23,434
Helena National Forest	505,681	38,228	29,199
Kootenai National Forest	362,669	5,946	5,490
Lewis and Clark National Forest	844,064	75,990	56,502
Lolo National Forest	296,898	5,251	3,266
Nez Perce National Forest	665,191	35,753	27,845
Subtotal	8,268,346	1,095,473	538,909
Region 2, Rocky Mountain Region			
Bighorn National Forest	963,772	123,734	94,722
Black Hills National Forest	1,211,319	87,449	85,925
Grand Mesa Uncompaghre Gunnison National Forest	2,780,322	276,365	224,602
Medicine Bow-Routt National Forest	1,797,144	298,774	263,066
Thunder Basin National Grassland	722,494	138,360	136,250
Nebraska National Forest (includes Fort Pierre National Grassland)	200,793	68,759	65,646
Oglala and Buffalo Gap National Grasslands	829,380	230,051	184,625
Rio Grande National Forest	1,560,430	86,516	69,530
Arapaho-Roosevelt National Forest	514,286	11,555	7,713
Pawnee National Grassland	198,041	82,445	28,025
Pike-San Isabel National Forest	1,125,780	27,148	15,740
Cimarron and Comanche National Grasslands	528,096	116,758	92,781
San Juan National Forest	2,012,944	141,230	97,290

**Appendix III
Detailed Grazing Data for Bureau of Land
Management and the Forest Service**

(Continued From Previous Page)

Regions	Acres^a	AUMs approved^b	AUMs billed^b
Shoshone National Forest	1,227,788	51,836	35,691
White River National Forest	1,456,895	186,136	162,582
Subtotal	17,129,484	1,927,116	1,564,188
Region 3, Southwestern Region			
Apache-Sitgreaves National Forest	1,877,307	209,723	95,165
Carson National Forest	1,657,436	113,326	80,901
Cibola National Forest (includes McClellan Creek National Grassland)	1,500,254	111,514	70,445
Black Kettle, Kiowa, and Rita Blanca National Grasslands	256,297	215,376	84,573
Coconino National Forest	1,707,982	168,932	115,549
Coronado National Forest	1,334,461	286,472	145,191
Gila National Forest	2,966,004	269,696	146,634
Kaibab National Forest	1,440,927	89,886	47,632
Lincoln National Forest	917,050	103,918	49,622
Prescott National Forest	1,215,178	128,531	26,219
Santa Fe National Forest	1,405,045	74,958	56,322
Tonto National Forest	2,629,757	279,697	40,804
Subtotal	18,907,698	2,052,029	959,057
Region 4, Intermountain Region			
Ashley National Forest	1,055,123	104,884	61,174
Boise National Forest	1,449,325	92,149	97,243
Bridger-Teton National Forest	2,254,437	372,658	191,925
Dixie National Forest	1,732,152	119,042	91,217
Fishlake National Forest	1,421,228	125,088	102,126
Manti-LaSal National Forest	1,311,426	252,396	190,391
Payette National Forest	1,009,796	167,577	97,117
Salmon-Challis National Forest	2,488,187	134,697	96,116
Sawtooth National Forest	1,710,407	294,025	198,056
Caribou-Targhee National Forest	2,329,740	481,826	423,713
Curlew National Grassland	47,790	21,501	20,153
Humboldt-Toiyabe National Forest	5,775,113	460,301	297,485
Uinta National Forest	648,861	202,044	167,569
Wasatch-Cache National Forest	873,177	150,696	129,417
Subtotal	24,106,762	2,978,884	2,163,702
Region 5, Pacific Southwest Region			
Angeles National Forest	30,250	14,917	0
Cleveland National Forest	113,775	4,606	2,135

**Appendix III
Detailed Grazing Data for Bureau of Land
Management and the Forest Service**

(Continued From Previous Page)

Regions	Acres^a	AUMs approved^b	AUMs billed^b
Eldorado National Forest	407,562	7,403	7,403
Inyo National Forest	866,587	63,711	51,611
Klamath National Forest (includes Butte Valley National Grassland)	708,640	19,372	17,521
Lassen National Forest	902,983	31,781	19,423
Los Padres National Forest	1,065,067	47,315	32,335
Mendocino National Forest	640,417	5,989	3,821
Modoc National Forest	3,832,197	126,206	97,737
Six Rivers National Forest	255,445	5,916	4,417
Plumas National Forest	645,888	27,883	19,774
San Bernardino National Forest	171,996	3,419	1,300
Sequoia National Forest	889,519	58,584	45,504
Shasta Trinity National Forest	130,059	9,659	2,637
Sierra National Forest	532,571	N/A	N/A
Stanislaus National Forest	633,764	26,703	42,969
Tahoe National Forest	495,063	32,617	25,344
Lake Tahoe Basin Management Unit	31,550	303	158
Subtotal	12,353,333	486,384	374,089
Region 6, Pacific Northwest Region			
Deschutes National Forest	602,687	9,507	4,772
Fremont National Forest	1,407,837	49,484	43,348
Gifford Pinchot National Forest	177,297	N/A	N/A
Malheur National Forest	1,627,719	118,539	92,810
Mt Hood National Forest	284,884	1,818	3,527
Ochoco National Forest	787,644	44,856	37,861
Crooked River National Grassland	112,357	16,930	7
Olympic National Forest ^c	0	0	0
Rogue River National Forest	554,485	11,249	7,655
Siskiyou National Forest	157,422	462	379
Siuslaw National Forest ^c	0	0	0
Umatilla National Forest	967,985	56,854	39,170
Umpqua National Forest	121,147	N/A	N/A
Wallowa Whitman National Forest	1,645,814	135,598	105,774
Okanogan-Wenatchee National Forests	1,675,338	87,957	51,473
Willamette National Forest	45	N/A	N/A
Winema National Forest	466,026	17,173	10,804
Colville National Forest	819,646	N/A	N/A
Subtotal	11,408,333	550,427	397,580

**Appendix III
Detailed Grazing Data for Bureau of Land
Management and the Forest Service**

(Continued From Previous Page)

Regions	Acres^a	AUMs approved^b	AUMs billed^b
Region 8, Southern Region			
NFS in Alabama National Forest	1,763	452	169
Chattahoochee-Oconee National Forest	1,507	3,690	0
National Forests in Florida	44,866	600	600
Kisatchie National Forest	73,238	6,238	151
National Forests in Mississippi	2,724	577	84
George Washington and Jefferson National Forests	8,400	9,579	7,405
Ouachita National Forest	453,195	7,326	4,225
Ozark-St Francis National Forest	49,732	7,092	3,192
National Forests in North Carolina	291	N/A	N/A
National Forests in Texas (includes Caddo/Lyndon B. Johnson National Grasslands)	39,342	4,404	3,449
Subtotal	675,058	39,958	19,275
Region 9, Eastern Region			
Chippewa National Forest	125	N/A	N/A
Huron Manistee National Forest	1,584	N/A	N/A
Mark Twain National Forest	42,777	15,341	13,630
Wayne National Forest	148	606	214
Midewin National Tallgrass Prairie	19,165	4,910	7,658
Green Mountain and Finger Lakes National Forests	5,438	8,942	7,042
Monogahela National Forest	6,203	4,917	5,267
Subtotal	75,440	34,716	33,811
Total	92,924,454	9,164,987	6,050,611

Source: Forest Service (data); GAO (analysis).

Notes: The Forest Service has no Region 7.

N/A = Not available.

^aAcres values include vacant and active acres for the Forest Service.

^bAlthough we use the term AUMs to simplify the comparison with BLM data, we used the Forest Service's head month data for this table because they are equivalent to BLM's AUM data.

^cAccording to agency officials, the Forest Service permitted grazing in Olympic and Siuslaw National Forests in the past, but grazing is no longer permitted in these forests.

Permits and Leases by Size

Because the number of AUMs per permit or lease can vary greatly, the number of AUMs controlled by permittees or lessees also varies greatly. Tables 12 through 16 show the number of BLM and Forest Service permits and leases, and AUMs, by permit size. When considering the data, it must be noted that multiple permits or leases may be contained on a single allotment, just as one permit or lease may span multiple allotments. It must

also be noted that several operators may share one permit or lease, just as one operator may possess multiple permits or leases; therefore, the number of permits and leases does not necessarily correlate to the total number of operators. Table 12 shows the size of BLM permits and leases, using approved AUMs in fiscal year 2004. The data do not include permits and leases with less than 2 AUMs.²

Table 12: Number of BLM Permits by Size, Fiscal Year 2004

Size of permit or lease, AUMs ^a	Number of permits and leases	Total approved AUMs
2 to 10	1,266	8,613
11 to 100	6,073	267,368
101 to 500	5,551	1,367,336
501 to 1,000	1,910	1,354,380
1,001 to 5,000	2,556	5,374,337
5,001 to 10,000	285	1,929,577
Over 10,000	143	2,364,322
Total	17,784	12,665,933

Source: BLM.

^aWe start with 2 AUMs because we recreated a table from a previous GAO report. In that report, officials were concerned about the accuracy of data for permits with 2 AUMs or less and considered all permits and leases with more than 2 AUMs.

The Forest Service provided data on permit size for cattle and sheep in regions 1 through 6, those regions with lands in western states. Table 13 shows the data for cattle, which do not include horses or other livestock and do not include permits with fewer than 2 AUMs of grazing for cattle.

²The agencies recreated tables that we produced in two previous GAO reports: GAO, *Rangeland Management: Profile of the Bureau of Land Management's Grazing Allotments and Permits*, GAO/RCED-92-213FS (Washington, D.C.: June 10, 1992) and GAO, *Rangeland Management: Profile of the Forest Service's Grazing Allotments and Permittees*, GAO/RCED-93-141FS (Washington, D.C.: Apr. 28, 1993).

Appendix III
Detailed Grazing Data for Bureau of Land
Management and the Forest Service

Table 13: Number of Forest Service Cattle Permits by Size, Grazing Year 2004

Size of permits, AUMs ^a	Number of permits	Total approved AUMs
2 to 10	26	170
11 to 100	757	43,071
101 to 500	2,199	592,251
501 to 1,000	1,090	773,293
1,001 to 5,000	1,170	2,337,730
5,001 to 10,000	89	604,806
Over 10,000	34	1,049,515
Total	5,365	5,400,836

Source: Forest Service.

^aThe permit size groups start with 2 AUMs because we recreated a table from a previous GAO report, and, in the past, officials were concerned about the accuracy of data for permits with 2 AUMs or less.

Forest Service sheep permits are shown in table 14. For the purposes of conversion, five sheep equal 1 AUM. In addition to the sheep, an insignificant number of horses are included in the data because, in some cases, permittees may keep a horse for herding the sheep.

Table 14: Number of Forest Service Sheep Permits by Size, Grazing Year 2004

Size of permits, AUMs ^a	Number of Permits	Total approved AUMs
50 to 500 ^b	17	4,680
501 to 1,500	46	46,876
1,501 to 5,000	125	406,865
5,001 to 15,000	109	969,131
15,001 to 25,000	25	471,869
over 25,000	13	461,751
Total	335	2,361,172

Source: Forest Service.

^aThe permit size groups start with 2 AUMs because we recreated a table from a previous GAO report. In that report, officials were concerned about the accuracy of data for permits with 2 AUMs or less.

^bThis does not include permits with less than 50 AUMs.

For comparison purposes, the size of cattle and calf operations in the United States is shown in table 15.

Appendix III
Detailed Grazing Data for Bureau of Land
Management and the Forest Service

Table 15: Number of Cattle and Calf Operations and Percent of Inventory, United States, 2004

Number of head of cattle and calves	Number of operations	Percent of inventory
1 to 49	618,750	11.3
50 to 99	163,750	11.6
100 to 499	178,530	35.4
500 to 999	18,445	12.7
1,000 to 1,999	6,300	7.8
2,000 to 4,999	2,700	7.7
5,000 to 9,999	580	3.9
10,000 to 19,999	225	2.9
20,000 plus	180	6.7
Total	989,460	100.0

Source: National Agricultural Statistics Service (data); GAO (analysis).

The size of beef cow operations is shown in table 16.

Table 16: Number of Beef Cow Operations and Percent of Inventory, United States, 2004

Number of head of beef cows	Number of operations	Percent of inventory
1 to 49	601,650	28.1
50 to 99	95,650	19.1
100 to 499	72,020	38.3
500 to 999	4,030	7.8
1,000 to 1,999	950	3.4
2,000 to 4,999	280	2.1
5,000 plus	50	1.2
Total	774,630	100.0

Source: National Agricultural Statistics Service (data); GAO (analysis).

Grazing Fee for Lands Managed by BLM and the Forest Service

Rangelands in the United States have been used for livestock grazing since the expansion and settlement of the western frontier. Ranchers have grazed livestock on lands managed by the Forest Service and its predecessor since the late 1890s and on lands managed by BLM and its predecessor since 1934. Historically, BLM and Forest Service fees were established to achieve different objectives—either to recover administrative expenses or to reflect livestock prices, respectively—but the agencies began using the same approach to setting fees in 1969. Over the years, the agencies, as well as outside entities, have conducted numerous studies attempting to establish a grazing fee that meets the objectives of multiple parties. The current fee for BLM and the Forest Service's 16 western states is based on a formula that estimates ranchers' ability to pay, and was established in 1978 based on studies conducted in the 1960s and 1970s.¹ This appendix discusses the current fee, historical fees, and key grazing studies and their findings.

Current Fee for BLM's and the Forest Service's Western States

In 2004, the grazing fee for lands managed by BLM and the Forest Service's 16 western states was \$1.43 per AUM—or the amount of forage needed to sustain a cow and her calf for 30 days.² This fee is set annually according to a formula established in the Public Rangelands Improvement Act of 1978 (PRIA) and extended indefinitely by Executive Order 12548. The formula is:

$$\text{Fee} = \$1.23 \times (\text{FVI} + \text{BCPI} - \text{PPI})/100$$

where \$1.23 = the base value, or the difference between the costs of conducting ranching business on private lands, including any grazing fees charged, and public lands, not including grazing fees. The costs were computed in a 1966 study that included 10,000 ranching businesses in the western states.

FVI = Forage Value Index, or the weighted average estimate of the annual rental charge per head per month for pasturing cattle on private rangelands in 11 western states (Arizona, California, Colorado, Idaho, Montana, New

¹The 16 western states include Arizona, California, Colorado, Idaho, Kansas, Montana, Nebraska, Nevada, New Mexico, North Dakota, Oklahoma, Oregon, South Dakota, Utah, Washington, and Wyoming.

²While BLM uses the term AUM as a unit for purposes of charging fees, the Forest Service uses the term head month. The two units are calculated the same way. We use the term AUM in this report to refer to both AUM and head month.

Mexico, Nevada, Oregon, Utah, Washington, and Wyoming) divided by \$3.65 per head month (the private grazing land lease rate for the base period of 1964-68) and multiplied by 100.

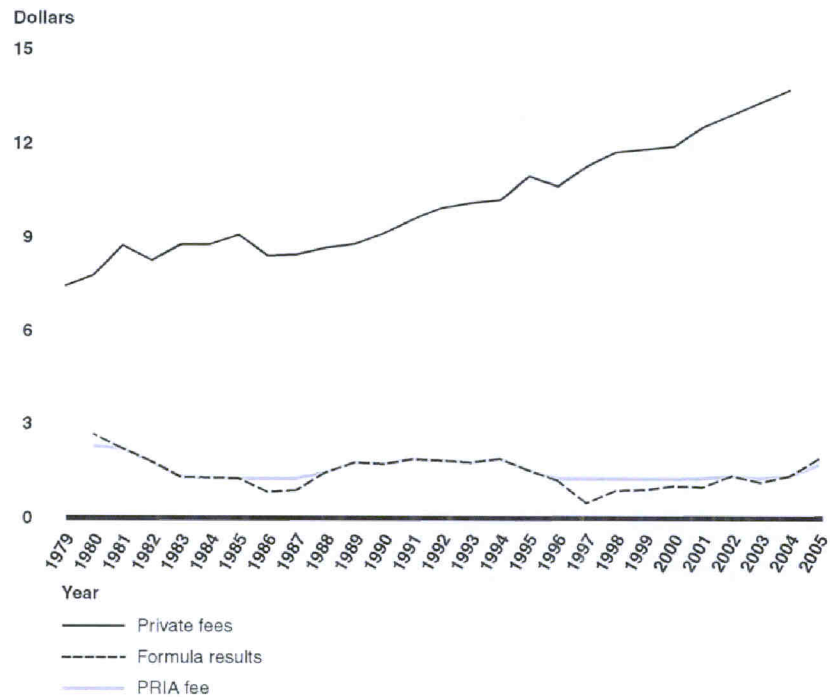
BCPI = Beef Cattle Price Index, or the weighted average annual selling price for beef cattle (excluding calves) in the 11 western states divided by \$22.04 per hundredweight (the beef cattle price per hundred pounds for the base period of 1964-68) and multiplied by 100.

PPI = Prices Paid Index, for selected components from USDA's National Agricultural Statistics Service's *Index of Prices Paid by Farmers for Goods and Services*, adjusted by different weights (in parentheses) to reflect livestock production costs in the western states [fuels and energy (14.5), farm and motor supplies (12.0), autos and trucks (4.5), tractors and self-propelled machinery (4.5), other machinery (12.0), building and fencing materials (14.5), interest (6.0), farm wage rates (14.0), and farm services (cash rent) (18.0)].

PRIA limited the annual increase or decrease in the resulting fee to 25 percent. It also established the fee formula for a 7-year trial period and required that the effects of the fee be evaluated at the end of that period. Although the fee formula under PRIA expired in 1986, the use of the fee formula was extended indefinitely by Executive Order 12548. The executive order requires the Secretaries of the Interior and Agriculture to establish fees according to the PRIA formula, including the 25 percent limit on increases or decreases in the fee. In addition, the order established that the fee should not be lower than \$1.35 per AUM.

As shown in figure 3, the formula results have been limited by the PRIA and executive order constraints, but neither the formula results nor the PRIA fee has mirrored fees charged for grazing on private lands.

Figure 3: Unconstrained Formula Results and PRIA Grazing Fee Compared with Fees Charged on Private Lands



Source: National Agricultural Statistics Service (data); GAO (analysis).

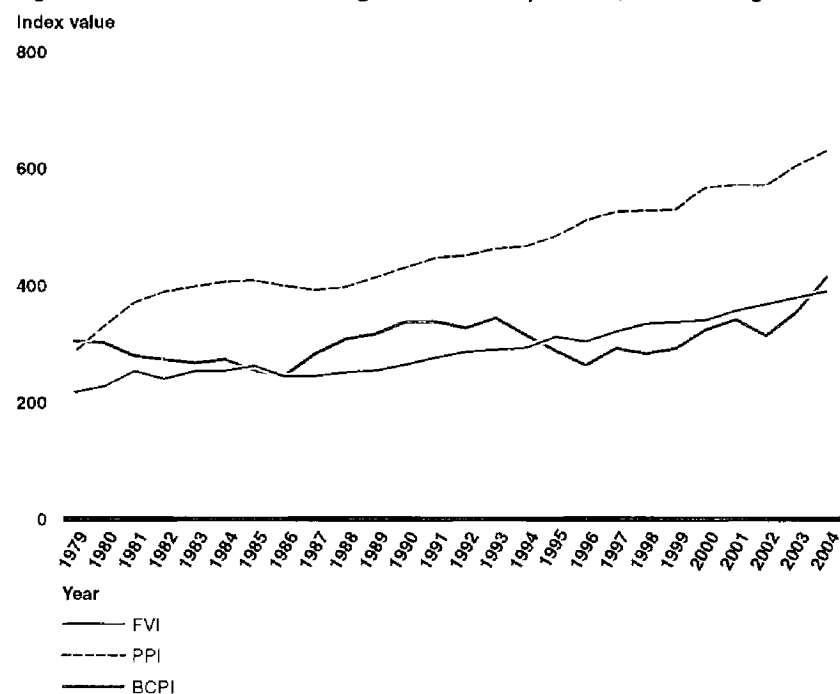
Note: In 1980, BLM and the Forest Service charged \$2.36 per AUM and \$2.41 per AUM, respectively, or on average, \$2.38 per AUM. Prior to 1981, the agencies charged different fees for grazing—in 1979, they charged \$1.89 per AUM and \$1.93 per AUM, respectively. In 1980, the agencies used the PRIA formula to calculate their fees, but the formula produced a fee of \$2.77, and PRIA limited the annual increase in the fee to 25 percent. The different fees charged in 1980 were a result of the agencies applying the 25 percent increase to their 1979 fees.

According to different economic studies and our evaluation of the PRIA fee structure in 1991, the fee is kept low by including the BCPI and PPI, which are factors that take into account ranchers' "ability to pay."³ Figure 4 shows the value of each PRIA component from 1979 through 2004.

³GAO, *Rangeland Management: Current Formula Keeps Grazing Fees Low*, GAO/RCED-91-185BR (Washington, D.C.: June 11, 1991).

Appendix IV
Grazing Fee for Lands Managed by BLM and
the Forest Service

Figure 4: Value of PRIA Grazing Formula Components, 1979 through 2004



Source: National Agricultural Statistics Service (data); GAO (analysis).

Table 17 shows the data used in the previous two figures for easier reading of the numbers.

Appendix IV
Grazing Fee for Lands Managed by BLM and
the Forest Service

Table 17: PRIA Formula Data for 1979 through 2004 and Fee Results for 1980 through 2005

Data year	Private lands grazing fee	FVI	BCPI	PPI	Fee year	Formula results	PRIA fee (constrained)
1979	7.53	206	294	275	1980	2.77	^a
1980	7.88	216	291	319	1981	2.31	2.31
1981	8.83	242	268	359	1982	1.89	1.86
1982	8.36	229	262	378	1983	1.39	1.39
1983	8.85	242	256	387	1984	1.37	1.37
1984	8.86	243	262	395	1985	1.35	1.35
1985	9.17	251	243	397	1986	0.93	1.35
1986	8.5	233	235	388	1987	0.98	1.35
1987	8.54	234	272	381	1988	1.54	1.54
1988	8.75	240	297	386	1989	1.86	1.86
1989	8.87	243	306	402	1990	1.81	1.81
1990	9.22	253	326	419	1991	1.97	1.97
1991	9.66	265	327	436	1992	1.92	1.92
1992	10.03	275	316	440	1993	1.86	1.86
1993	10.2	279	333	451	1994	1.98	1.98
1994	10.3	282	304	455	1995	1.61	1.61
1995	11	301	277	473	1996	1.29	1.35
1996	10.7	293	252	499	1997	0.57	1.35
1997	11.3	310	281	512	1998	0.97	1.35
1998	11.8	323	272	514	1999	1	1.35
1999	11.9	326	281	516	2000	1.12	1.35
2000	12	329	313	554	2001	1.08	1.35
2001	12.6	345	330	559	2002	1.43	1.43
2002	13	356	303	559	2003	1.23	1.35
2003	13.4	367	342	593	2004	1.43	1.43
2004	13.8	378	402	618	2005	1.99	1.79

Source: National Agricultural Statistics Service.

^aIn 1980, BLM and the Forest Service charged \$2.36 per AUM and \$2.41 per AUM, respectively, or on average, \$2.38 per AUM. Prior to 1981, the agencies charged different fees for grazing—in 1979, they charged \$1.89 per AUM and \$1.93 per AUM, respectively. In 1980, the PRIA formula produced a fee of \$2.77, but PRIA limited the annual increase in the fee to 25 percent. The different fees charged in 1980 were a result of the agencies applying the 25 percent increase to their 1979 fees.

History of Western Grazing Fees

Grazing fees have been charged for lands managed by the Forest Service since 1906—9 years after grazing was authorized on forest reserves—and for lands now managed by BLM since 1936, 2 years after the enactment of the Taylor Grazing Act. Before 1906, livestock could graze on federally managed lands for free, and livestock operators objected to being charged. Originally, the fee charged by the Forest Service and BLM was \$0.05 per AUM for cattle, but the fee increased by 1968 to \$0.56 per AUM for Forest Service permits and \$0.33 per AUM for BLM leases and permits.

Until 1969, the approach used by the Forest Service and BLM for establishing grazing fees differed. The original Forest Service fee was based on the rental value of local, private grazing tracts, while the original BLM fee was based on the agency's administrative expenses. Beginning in the 1920s and continuing through 1968, the Forest Service based its fee on beef and lamb prices, as determined through studies it conducted. BLM (and its predecessor) also conducted studies of its fee approach. In 1946, the year that BLM was created, one of these studies supported the use of administrative expenses as a basis for the fee. However, in 1951, BLM began increasing its fees, and in 1958, it shifted its approach to one that was similar to the Forest Service approach—that is, based on livestock prices. Throughout the 1960s, BLM charged fees that factored in livestock prices. For example, the 1958 fee increased from \$0.19 per AUM to \$0.22 per AUM in 1959 and 1960, and it decreased to \$0.19 per AUM in 1961 and 1962, reflecting decreasing livestock prices.

Since 1969, the Forest Service and BLM have used a uniform approach to establish a grazing fee. After a 1960 study conducted for the Bureau of the Budget—the predecessor of the OMB—by an interdepartmental grazing committee, the Bureau set a new fee schedule for the agencies to achieve fair market value for federal grazing permits and leases. An extensive survey in 1966 of the western livestock industry, called the *Western Livestock Grazing Survey and Analysis*, and a 1968 review of that survey data determined that a fair market value for federal grazing permits and leases would be \$1.23 per AUM. The \$1.23 per AUM value equalizes the costs of conducting business between private ranch lands and federal lands. It is based on the premise that the costs of conducting grazing activities on federal lands should be competitive and comparable to the costs on private land. Because the new fee, if imposed all at once, would have increased Forest Service fees by \$0.72 per AUM and BLM fees by \$0.90 per AUM, a 10-year phase period was scheduled.

Before the new fee could be implemented, drought and continued debate caused several delays in the phase-in schedule, and in 1976, the Congress passed the Federal Land Policy and Management Act (FLPMA), which required the Secretaries of Agriculture and of the Interior to conduct a study to establish a fee that was equitable both to the United States and to holders of grazing permits and leases. The 1977 study, *Study of Fees for Grazing Livestock on Federal Lands*, written by a task force of Forest Service and BLM officials,⁴ evaluated several different formulas for setting a grazing fee. The goal was to establish a fee that achieved multiple objectives, including getting fair market value for the forage while also reflecting the value of grazing to the rancher. The fee was also to contain regular adjustments to account for changes in fair market value over time.

On the basis of the 1977 study, Congress enacted PRIA with the task force's recommended formula for a 7 year trial basis. The agencies studied the effectiveness of the formula after 7 years, as required in PRIA, and academic economists sought to establish better ways to set a fee, but the use of the formula was extended indefinitely by executive order and has remain unchanged. Two studies by the agencies, one in 1986 and its update in 1992, evaluated the components of the PRIA formula and its results.⁵ The reports identified technical issues with the formula, including the fact that the BCPI does not include prices for calves—which are produced on western lands—and does include fat cattle (cattle fattened on grain for slaughter), which are not produced on western lands. The reports also noted that the PPI does not include a cost of living component; components of farm origin (feed, feeder livestock, seed, and fertilizer); or taxes; all of which increases the weight of factors that are affected by inflation, such as fuel costs. Finally, the reports identified the need to update the base value (\$1.23 per AUM) to reflect current market values rather than 1960s data.

Critics of the reports stated that the agencies did not evaluate the effectiveness of the PRIA formula; disagreed with the agencies' appraisal of private lands and fees; and identified incorrect statistical indexing, such as

⁴Departments of the Interior and Agriculture, *Study of Fees for Grazing Livestock on Federal Lands* (Washington, D.C.: October 21, 1977).

⁵Departments of the Interior and Agriculture, *Grazing Fee Review and Evaluation* (Washington, D.C.: February, 1986) and Departments of the Interior and Agriculture, *Grazing Fee Review and Evaluation Update of the 1986 Final Report* (Washington, D.C.: April 30, 1992).

using inflation factors instead of a livestock-relevant factor. They also stated that the agencies failed to recognize the different costs of operating on federal and private land. According to the critics, one of these costs is the value of permits and leases, which is included in the value of privately owned ranches. The livestock industry believes that this value should be included in the calculation of the \$1.23 base value (subtracted out as a cost of doing business).

In 1993, in response to a perceived need to increase fees to capture the economic value of forage, another Forest Service and BLM study examined the potential for an incentive-based grazing fee. The report identified the “grazing fee dilemma” as one in which the federal government is not receiving full market value for its forage, but as one in which ranchers are paying full market value by paying (1) the fee; (2) nonfee grazing costs (including costs for operating on federal lands, i.e., complying with federal requirements like those for endangered species habitat); and (3) investments in grazing permits and leases.⁶ According to this study, the only way to determine the fair market value of federal grazing permits and leases was through competitive bidding, which would have its own set of administrative expenses. In lieu of competitive bidding, according to this study, all methods of estimating fair market value resulted in fees somewhere between \$3 and \$5, and the base value of the formula should be negotiated at some price in that range. The report also stated that including BCPI and PPI in the grazing formula did not improve the ability of the PRIA formula to track market prices, as anticipated in 1977, and that FVI would adequately update the grazing fee. This study and report were used to inform efforts to reform grazing regulations in 1994.

In the late 1980s, agricultural economists examined livestock prices and ranch revenue—the gross income from ranching—to assess the rate of return on investments in cattle and sheep ranches. The economists found that rates of return are relatively low compared with other investments, but that land value has increased and kept ranchers financially solvent. Furthermore, the net return in the ranching industry—the value of production minus costs—is often negative. This information was used to support federal legislation to change grazing fees in 1997. The legislation proposed to change the fee to equal the 12-year average of the total gross

⁶Department of Agricultural Economics and Agricultural Business, *The Value of Public Land Forage and the Implications for Grazing Fee Policy*, Bulletin 767 (Las Cruces, New Mexico: New Mexico State University, 1992).

Appendix IV
Grazing Fee for Lands Managed by BLM and
the Forest Service

value of production for beef, multiplied by the 12-year average of the Treasury 6-month bill “new issue” rate, divided by 12.⁷ The proposal was not enacted.

⁷H.R. 2493, Forage Improvement Act of 1997 (introduced Sept. 18, 1997).

Examples of Other Federal Agency Grazing Fees

This appendix illustrates the different grazing fees used by federal agencies other than BLM and the Forest Service. It describes the specific fees charged at two Air Force bases—one managed by the Air Force and the other managed by BLM—an Army base, a national monument, a national refuge, and a Reclamation project.

Melrose Air Force Range, Cannon Air Force Base, New Mexico

Melrose Air Force Range, located in eastern New Mexico, is a more than 66,000 acre site used by the Air Force to train pilots. It consists of an 8,800 acre target area and 57,000 acres of land surrounding the target area that acts as a buffer. The land is divided into 13 grazing areas, each of which has fencing and a water supply provided by a system of pipelines and water tanks. The target area lands were acquired from local ranchers in the 1950s, and the remaining area was acquired in the 1980s. Because the lands were acquired from local ranchers, the Air Force granted a special waiver in March 2002 to allow noncompetitive leasing to the former owners. Air Force policy allows waivers of competition under certain conditions, including offers of first lease of land to former owners.

In fiscal year 2002, when many of the range's leases were renewed, the fee charged for grazing was \$1.60 per acre of land (about \$5.30 per AUM). The waiver of competition contained a condition that the lease fee was to be based on a market rate determined by real property specialists. To establish a market-based grazing fee, the Air Force real estate staff developed comparable lease information for other grazing land in the vicinity and set an equivalent price. One source used for pricing information was a local agricultural land appraiser and the other was a Web site identified by the local BLM office that contained lease rates for the state. The prices remain the same for the 5-year term of the lease, when they will be reestablished. In mid-2003 and all of 2004, Cannon Air Force Base halted grazing on Melrose Range because of drought conditions that affected much of New Mexico and the southwestern United States. The ranchers received credits for the months that their cattle did not graze.

McGregor Range, New Mexico

McGregor Range in southern Otero County, New Mexico, is a 694,981 acre area that contains a bombing range used by the Air Force to train pilots, who practice bombing targets within the range. The land within McGregor Range has mixed ownership and management, including 608,385 acres (87 percent) of public land managed by BLM but withdrawn from public use, 71,083 acres (about 10 percent) owned in fee title by the Army, and 17,864 acres (3 percent) managed by the Forest Service.

In 1999, the Congress enacted the Military Lands Withdrawal Act, renewing the withdrawal of public lands comprising the McGregor Range for military use but requiring BLM to plan and manage use of the lands in accordance with the principles of multiple use and sustained yield required by FLPMA. While accommodating the military's continued use of the range, BLM manages other activities on the range, including livestock grazing, habitat management, fire prevention and control, and recreation, such as hunting. BLM's Las Cruces Field Office in New Mexico administers livestock grazing on 271,000 acres of land. The area is divided into 14 grazing units available for grazing contract, primarily for cattle.

In contrast to the fee charged on other BLM and Forest Service lands, BLM manages livestock grazing permits on McGregor Range using competitive bidding to establish its grazing fee. BLM sets a minimum bid and then holds an annual public auction, where all bidders meet and openly submit their offers. As a result, in September 2004, BLM received winning bids ranging from \$5.00 to \$14.50 per AUM to graze cattle on designated grazing units for the 9-month grazing season ending in June 2005. BLM expects the McGregor Range grazing program to be self-sustaining through competitive bidding for grazing units. BLM staff for McGregor Range consist of one rangeland management specialist, one range technician, and one maintenance worker. Revenues from the grazing leases allow BLM employees to monitor the number of cattle on the range and manage roads, fences, corrals, and water pipelines. The livestock owners manage and provide care for the cattle, including salt, minerals, and veterinary services. According to BLM officials, additional services provided on the range by BLM result in a higher minimum bid, and BLM is able to attract higher bids compared to other livestock grazing areas.

**Fort Hood Army
Installation, Texas**

Fort Hood, located in central Texas, is a 217,000-acre Army installation, the majority of which is used for military training activities, including tank and other armored vehicle training exercises. The Army allows a certain level of grazing on about 197,000 acres of the installation, having determined that grazing would not interfere with the installation's primary training mission. The majority of the installation's lands were acquired from private landowners. Some of the original landowners formed a group, called the Central Texas Cattlemen's Association, which has continued leasing the land since 1954. In 2005, upon lease renewal, the Assistant Secretary of the Army (Installations and Environment) determined to offer the group a noncompetitive lease, provided that the installation obtain a fair market value for the lease. The Corps—the Army's leasing agent—had

recommended that the lease be competitively bid, but it also acknowledged that a transition to competitive leasing may be needed. The Army determined that while it had no legal obligation to continue leasing to the group, the relationship with the neighboring ranchers contributed to the Army's ability to sustain its mission, discharge its environmental stewardship responsibilities, and maintain its standing in the community.

In 2005, the Army renegotiated a lease with the Central Texas Cattlemen's Association, charging a price of \$4.67 per AUM (\$56 per animal unit, per year), plus the installation's administrative and management expenses. The Army agreed to adjust the number of animal units based on a new forage assessment and an evaluation of training intensity and the consequent effects on forage. The Army also agreed to conduct a new appraisal that considers factors that are unique to managing grazing on a military installation, such as lack of fencing, presence of endangered species, and restricted access to the installation. Although a land appraisal was conducted in 2004 and determined the price of the new lease to be \$7.83 per AUM, Army officials agreed with the Association to discount this value by 40 percent for April 1, 2005, through August 31, 2005, because the appraisal did not explicitly consider the military unique circumstances that, according to Army officials, lead to higher grazing costs on Army lands. The 40-percent figure was based on a figure used in a 1996 appraisal, although the U.S. Army Audit Agency questioned the adjustment in a 2001 audit report.¹ The Army received a new appraisal on August 12, 2005, that has a price of \$5.66 per AUM (\$68 per animal unit, per year) when adjusted for military unique circumstances. It will use this new amount as the basis of the fee for the remainder of the 5-year lease period. In addition to these agreements, the Cattlemen's Association agreed to pay \$102,000 for estimated administrative expenditures owed in the new lease and agreed to reimburse actual expenditures when the Army presents evidence of actual expenditures at the end of the lease year. Army staff estimated their 2005 expenditures to be \$285,000.

Dinosaur National
Monument, Colorado and
Utah

Dinosaur National Monument, located in northwestern Colorado and northeastern Utah, was created to protect a large deposit of dinosaur fossils and later expanded to protect the river corridors of the Green and Yampa rivers. The monument, which occupies 210,000 acres of desert

¹U.S. Army Audit Agency, *The Army Installation Conservation Program—Outleasing: III Corps and Fort Hood, Fort Hood, Texas*, AA 02-099 (Alexandria, Virginia: Dec. 19, 2001).

habitat, permits grazing on monument lands to ranchers that have historically held grazing rights. Several ranchers with grazing rights own land within the boundaries of the monument, called inholdings, while several other ranchers with grazing rights own land adjacent to the monument. In fiscal year 2004, monument staff authorized 1,794 AUMs on 67,120 acres using seven special use permits.

In 2004, the monument charged \$1.43 per AUM—the price for grazing on BLM lands. National Park Service regulations specific to the monument direct that the grazing fees at the monument shall be the same as those approved for the BLM.² The National Park Service is statutorily authorized to recover the costs of administering special use permits; however, a monument official said that they have never charged such a fee because of the more specific regulations that determine the monument's fee.

**Klamath Basin National
Wildlife Refuge Complex,
California and Oregon**

The U.S. Fish and Wildlife Service's Klamath Basin National Wildlife Refuge Complex is part of the wetland and lake system of the Klamath Basin of northern California and southern Oregon and provides habitat for numerous birds along the Pacific flyway during spring and fall migrations. In 1905, Reclamation began to convert wetlands in the basin into agricultural lands. The refuge complex is comprised of six refuges that were established between 1908 and 1978 to conserve wetlands as a preserve and breeding ground for birds and animals. The refuge is also managed to allow appropriate agricultural uses of land. Klamath Basin refuge managers authorize grazing on 17,046 acres of the basin to allow adjacent ranchers access to forage on refuge lands and to reduce certain grasses, thereby improving the habitat of the birds that use the refuges.

In fiscal year 2004, the refuge charged different fixed amounts ranging from \$5.00 to \$6.55 per AUM for grazing on three federal refuges in the Klamath Basin complex—Clear Lake, Lower Klamath, and Upper Klamath. U.S. Fish and Wildlife Service regulations require that fees charged for the grant of privileges and for the sale of all products taken from refuge areas, including forage, be equivalent to the fees charged by private owners in the vicinity of the refuge. Refuge officials said that the fees were negotiated in the 1980s and have remained unchanged. However, they stated that the fees are appropriate because the refuges receive benefits from grazing for wildlife

²See 36 C.F.R. 7.63(b)(5).

habitat and forage and permittees must meet specific limitations on their use of refuge lands. For example, in one case involving the Clear Lake National Wildlife Refuge, when water levels decrease significantly and expose Native American archaeological sites, one rancher incurs significant expenditures (e.g., temporary fencing, temporary water sources, and a herder) to keep cattle away.

**Fresno Reservoir and
Reclamation's Milk River
Project, Montana**

Fresno Reservoir, located in north-central Montana, is part of Reclamation's Milk River Project, which provides irrigation water to about 121,000 acres of land. Reclamation acquired excess land surrounding Fresno Reservoir when it built the Fresno Dam; the reservoir was originally planned to be higher and would have flooded more land. As a result, Reclamation allows grazing on the strip of land surrounding the reservoir. The area office conducts grazing on over 24,000 acres of land near Fresno Reservoir, and allows grazing on over 27,000 acres of land managed by two irrigation districts on Reclamation land within the greater Milk River Project. Revenue from the grazing receipts goes into either the Reclamation Fund or is credited to divisions within the Milk River Project.

In fiscal year 2004, the Montana Area Office charged between \$8.25 and \$25.10 per AUM for numerous grazing permits and leases within the Milk River Project. To establish these fees, the area office used three types of market-based methods, including competitive, limited competitive, and negotiated. For all permits and leases, the area office set a minimum bid based on the market value for permits and leases in the area, and then discounted the rate for factors such as lack of fencing on Reclamation lands. The area office then offered the majority of project permits and leases for competitive bid using a sealed bid process. For parcels with limited access, the area office limited competition to the adjacent landowners, giving them equal opportunity to bid on the permits and leases. Much of the land within the Milk River Project is surrounded by private land, and therefore the Reclamation land has limited public access. For a few permits and leases, the area office used what it called a negotiated method to establish the grazing fee. In these cases, in which only one rancher has access to a site, the area office offered each permit or lease to the rancher at the minimum bid, allowing the rancher to accept or reject the bid.

Western State Grazing Fees and Formulas

As this appendix discusses, the 17 western states vary considerably in the fees charged for state lands and the methods used to set those fees. These states' land offices manage more than 46 million acres of trust lands, of which more than 37 million acres were grazed in fiscal year 2004,¹ bringing in grazing revenues of more than \$40.7 million.

Upon statehood, most western states, as well as several other states throughout the nation, received lands from the federal government to be held in trust to generate revenue for public education. The Land Ordinance of 1785 initiated a program to reserve certain lands within each western township to support public schools in that township. In 1848, the federal government doubled the lands granted to western states, and it did so again by 1910, with the accession of Utah, Arizona, and New Mexico to statehood.²

According to many state officials that we interviewed, many state trust lands are comparable in range condition, productivity, and land value to federal lands. For example, in some states, such as Wyoming and Oklahoma, state lands are intermingled with or adjacent to federal lands; thus the native characteristics of the lands are similar. In some cases, however, federal and state lands are not comparable. For example, in Oregon much of the federal land is forested, while much of the state land is rangeland.

Generally, the states charge a fee per AUM. In fiscal year 2004, the western states charged grazing fees ranging from a low of \$1.35 per AUM for some lands in California to \$80 per AUM in parts of Montana. As shown in table 18, the majority of the western states use a market or market-based approach to set grazing fees. Specifically, six states (Montana, Nebraska, New Mexico, North Dakota, Oklahoma, and South Dakota) offer their leases to the highest bidder through a competitive process, and six states

¹The western states predominantly maintain grazing data by fiscal year. However, several states (Colorado, Idaho, North Dakota, Oklahoma, Oregon, South Dakota, and Washington) maintain some grazing data by fiscal year and some by calendar year.

²Originally, with the Land Ordinance, the number 16 lots of every township were reserved for that township. In 1848, the act establishing Oregon gave states in the Northwest territory sections 16 and 36 in each township. In 1894, Utah, followed in 1910 by Arizona and New Mexico, entered the nation with two additional sections reserved in each township, sections 2 and 32. In addition to lands granted for schools, states could set aside additional trust lands to generate revenue for broader purposes, such as supporting universities, hospitals, and other public buildings.

Appendix VI
Western State Grazing Fees and Formulas

(Arizona, California, Colorado, Texas, Washington, and Wyoming) use market-based approaches that rely on regional market rates, land appraisals, or formulas that adjust the market price for grazing by factors that account for differences between state and private lands and livestock market conditions. Three states (Idaho, Oregon, and Utah) use formulas that do not start with a market price for private lands, but instead use either a base fee, adjusted for livestock market and other factors, or a fixed percentage of livestock production value. Two states, Nevada and Kansas, allow some grazing on lands managed by other state agencies, but they do not allow grazing on state trust lands and are therefore not included in this appendix.

Table 18: Information on State Lands Used for Grazing, Revenues, and Fee-Setting Approach in 17 Western States, Fiscal Year 2004^a

State	State lands managed (acres)	State lands allocated for grazing (acres)	Total revenue from state lands	Total revenue related to grazing	Grazing fee (per AUM unless noted)	Approach to setting fee
Arizona	9,300,000	8,300,000	\$145,600,000	\$2,200,000	\$2.23	Market-based appraisal with annual adjustment
California	470,000	13,000	6,200,000	8,000	1.35 to 12.50	Market based on average rates; fee varies by county
Colorado	3,000,000	2,400,000	36,450,000	4,730,000	6.65 to 8.91	Market-based formula; fee varies by region
Idaho	2,400,000	1,900,000	65,560,000	1,630,000	5.15	Formula similar to federal fee
Kansas ^b	b	b	b	b	b	No grazing on state land office lands
Montana	5,100,000	4,250,000	75,700,000	5,500,000	5.48 to 80.00	Market with minimum bid (\$5.48 per AUM)
Nebraska	1,450,000	1,200,000	20,000,000	10,000,000	16.00 to 28.00	Market with minimum bid (minimum fee varies by region)
Nevada ^c	3,000	0	c	c	c	No grazing on state land office lands
New Mexico	9,000,000	8,700,000	278,700,000	7,630,000	0.71 to 10.15 (per acre)	Market with minimum bid (\$4.22 per AUM)
North Dakota	710,000	690,000	4,600,000	Unknown ^d	1.73 to 19.69 (per acre)	Market with minimum bid (minimum fee varies by tract)
Oklahoma	745,000	500,000	9,800,000	Unknown ^d	7.00 to 16.00	Market with minimum bid (minimum fee varies by region)
Oregon	1,570,000	640,000	620,000	300,000	4.32	Formula based on production factors

**Appendix VI
Western State Grazing Fees and Formulas**

(Continued From Previous Page)

State	State lands managed (acres)	State lands allocated for grazing (acres)	Total revenue from state lands	Total revenue related to grazing	Grazing fee (per AUM unless noted)	Approach to setting fee
South Dakota	770,000	750,000	3,000,000	2,250,000	3.00 to 56.00 (per acre)	Market with minimum bid (\$9.00 per AUM)
Texas	750,000	550,000	365,000,000	1,200,000	4.16 to 12.50	Market-based appraisals
Utah	3,500,000	3,000,000	52,500,000	440,000	1.43 or 2.35	Formula that is similar to federal fee formula
Washington	3,000,000	850,000	210,000,000	650,000	5.41 or 7.76	Market-based formula for leases or based on production factors for permits
Wyoming	3,600,000	3,500,000	92,900,000	4,180,000	4.13	Market-based formula
Total	45,400,000	37,200,000	\$1,366,600,000	\$40,700,000	\$1.35 to 80.00	

Source: State agencies (data); GAO (analysis).

Note: Numbers may not total due to rounding.

^aThe western states predominantly maintain grazing data by fiscal year. However, several states (Colorado, Idaho, North Dakota, Oklahoma, Oregon, South Dakota, and Washington) maintain some grazing data by fiscal year and some by calendar year.

^bKansas does not manage any grazing on state trust lands.

^cThe Nevada Division of State Lands within the Nevada Department of Conservation and Natural Resources does not manage any grazing on its lands. While other state offices in Nevada do manage grazing on state lands, we did not collect these data.

^dNorth Dakota and Oklahoma do not know total grazing revenue because they do not separate grazing revenue from crop revenue.

The states provided details about their approaches to setting grazing fees, as well as information on their lands and revenues collected.

Arizona: In Arizona, the annual rental rate for grazing land is required to be the true value rental rate determined by the Arizona State Land Commissioner based on the recommendations of the grazing land valuation commission. In fiscal year 2004, the Arizona State Land Department charged \$2.23 per AUM for grazing on lands that it manages. In 1996 the department appraised the true value of forage on trust land using the market and income approaches. According to Arizona officials, yearly adjustment to the appraised value is made based upon a factor that is the ratio between the 5 year new and old average prices of beef, as compiled by USDA's National Agricultural Statistics Service. Upon renewal, if multiple applications are filed for a lease, the current lessee can match competing bids. The department manages more than 9.3 million acres of land, of which more than 8.3 million acres were allocated for grazing in fiscal year 2004. Total grazing receipts in fiscal year 2004 were about \$2.2 million.

California: Upon receiving an application to lease lands, the California State Lands Commission is to appraise the lands and fix the annual rent; the total amount of the rental should not be in excess of the fair market value of the lands. In fiscal year 2004, the commission charged a range of fees, from \$1.35 to \$12.50 per AUM, for grazing on the lands that it manages. The commission establishes the grazing fees by calculating an average rate based on the rates charged by county agriculture commissioners or assessors and agricultural extension offices. If the total grazing fee for a lease is less than \$500, as is often the case, a minimum rental fee of \$500 per year is applied. The commission manages about 470,000 acres of surface land, of which almost 13,000 acres were allocated for grazing in fiscal year 2004. Total grazing receipts in fiscal year 2004 were about \$8,000.

Colorado: The Colorado State Board of Land Commissioners is to include lease rates that will promote sound stewardship and land management practices, long-term agricultural productivity, and community stability. In 2004, the state board charged between \$6.65 and \$8.91 per AUM for grazing on lands that it manages, depending on the region. The state board sets grazing fees on the basis of a 2004 statewide survey of private lease rates. The grazing fee is calculated for each region based on the average rate identified by the survey, then reduced by 35 percent to account for differences, such as fencing or water, between private and state lands. Each year since 2001, the state board has determined whether the fee should be adjusted up or down by 3 percent, depending on the Beef Price Index. The state board manages about 3 million acres of state land, of which about 2.4 million acres were allocated for grazing in 2004. Total grazing receipts in fiscal year 2004 were about \$4.7 million.

Idaho: The Idaho State Board of Land Commissioners may lease any portion of the state land at a rental amount fixed and determined by the board. In 2004, the Idaho Department of Lands charged \$5.15 per AUM for grazing on the lands that it manages. The board sets the grazing fee using a formula based on livestock market factors. The formula establishes the forage value for a given year based on four factors: the (1) forage value index for 11 western states; (2) beef cattle price index for 11 western states; (3) prices paid index for 11 western states; and (4) Idaho forage value index. The formula is then applied to a base value of \$1.70, which was established in 1993 by the board. If the department receives more than one application for a lease, then it auctions the lease. The department manages about 2.4 million acres of land, of which about 1.9 million were allocated

for grazing in fiscal year 2004. Total grazing receipts in fiscal year 2004 were about \$1.6 million.

Montana: The Trust Land Management Division of the Montana Department of Natural Resources and Conservation must lease tracts to the highest bidder unless the Board of Land Commissioners determines that the bid is not in the state's best interest, and the board may not accept a bid that is below full market value. The division used competitive bidding to collect between \$5.48 and \$80.00 per AUM for grazing on the lands that it manages in fiscal year 2004. If no bids are received, then the division issues the lease or permit at the minimum rate, which was \$5.48 per AUM in fiscal year 2004, set by a fee formula. The formula establishes the minimum fee by multiplying the average price per pound for beef cattle in Montana by a multiplier of 7.54. The division manages about 5.1 million acres of land, of which more than 4.2 million acres were allocated for grazing in fiscal year 2004. Total grazing receipts in fiscal year 2004 were about \$5.5 million.

Nebraska: In Nebraska, all school land is subject to lease at fair market rental as determined by the Board of Educational Lands and Funds. In fiscal year 2004, the board used competitive bidding to collect between \$16 and \$28 per AUM for grazing on the lands that it manages. The board sets minimum grazing fees by geographic area. It uses a formula that multiplies the available AUMs by private sector rates, and then adjusts the resulting per-acre rents downward to reflect fence and water improvements, which the lessees must provide. The board uses three data sources to determine private sector rates: (1) verified private sector rental contracts collected by its employees, (2) a questionnaire that the board sends to professional farm and ranch managers who have mandatory fiduciary responsibility to the landowners they represent, and (3) an annual study conducted by the University of Nebraska. The board gives the private contracts the most weight when determining the grazing fee. If more than one qualified bidder is interested in the lease, it is sold to the party bidding the highest cash bonus at auction. The board manages more than 1.4 million acres, of which about 1.2 million acres were allocated for grazing in fiscal year 2004. Total grazing receipts in fiscal year 2004 were about \$10 million.

New Mexico: In New Mexico, the Commissioner of Public Lands is to make rules and regulations for the control, management, disposition, lease, and sale of state lands. In fiscal year 2004, the New Mexico State Land Office charged a minimum of \$4.22 per AUM for grazing on lands that it manages, and collected between \$0.71 and \$10.15 per acre, based on competitive bidding. Absent a competitive bid, the state land office sets an annual

grazing fee using a formula that multiplies a base value of \$0.0474 by the carrying capacity of the land, the acreage, and the Economic Variable Index. This index is the ratio of the value of a state land office adjustment factor for that year to the value of that same adjustment factor calculated for the base year, 1987. The state land office manages about 9 million acres, of which about 8.7 million acres were allocated for grazing in fiscal year 2004. Total grazing receipts in fiscal year 2004 were about \$7.6 million.

North Dakota: In North Dakota, the Board of University and School Lands is required to set the minimum rental for uncultivated and cultivated lands, which it sets for the purpose of public auction using a procedure called "the fair market value method," which it promulgated in 1989. In fiscal year 2004, the North Dakota State Land Department collected between \$1.73 and \$19.69 per acre, based on competitive bidding at public auction, on grazing lands that it manages. The department accepts bids over a minimum fee that is set for each tract based on a county-by-county survey completed annually by USDA's National Agricultural Statistics Service. The department manages about 710,000 acres, of which about 690,000 acres were allocated for grazing in fiscal year 2004. The department does not know the total revenue related to grazing collected in fiscal year 2004 because they do not separate grazing and cropland revenues.

Oklahoma: In Oklahoma, rentals are required to be determined by public auction. In 2004, the Oklahoma Commissioners of the Land Office used competitive bidding to collect between \$7 and \$16 per AUM for grazing on lands that it manages. The land office sets a minimum grazing fee based on appraisals, and the grazing leases are then auctioned and awarded to the highest bidder. The land office manages about 745,000 acres, of which about 500,000 were allocated for grazing in 2004. The land office does not know the total revenue related to grazing collected in fiscal year 2004 because it does not separate grazing and cropland revenues.

Oregon: The Oregon Department of State Lands may lease common school grazing lands subject to terms and conditions it sets or are otherwise legislated. In 2004, the department charged \$4.32 per AUM for grazing on lands that it manages, using a formula that considers livestock production factors. The formula multiplies the (1) animal gain per month, fixed at 30 pounds; (2) marketable calf crop, fixed at 80 percent; (3) the state share of the calf crop, fixed at 20 percent; and (4) average statewide calf sales price for the preceding year, from USDA's Oregon agricultural price data. This annual rental is determined by multiplying the AUM rental rate by the average annual base rate forage capacity in AUMs of each leasehold and

should be at least \$100. The department is currently reconsidering Oregon's grazing fee formula and is comparing the formula with the grazing fee formulas in surrounding states. The department manages almost 1.6 million acres, of which about 640,000 acres were allocated for grazing in 2004. Total grazing receipts in fiscal year 2004 were about \$300,000.

South Dakota: In South Dakota, the Commissioner of School and Public Lands is to establish the minimum annual rental rate per acre, which is the rate at which bidding starts. In 2004, the South Dakota Office of School and Public Lands used competitive bidding to collect between \$3 and \$56 per acre on lands that it manages. The commissioner of the office sets a minimum grazing fee, \$9 per AUM in 2004, using a formula that multiplies the nonweighted 5-year average price per pound of all calves sold in South Dakota by 425 pounds, the average calf weight. The number is then divided by 12 months and multiplied by a percentage set by the commissioner, 25 percent in 2004. Once the minimum fee per AUM is established, the office divides the fee by the land's annual carrying capacity in order to establish a minimum per acre opening bid. The office manages about 770,000 acres, of which about 750,000 acres were allocated for grazing in 2004. Total grazing receipts in fiscal year 2004 were about \$2.25 million.

Texas: The Texas General Land Office is to award leases to the highest responsible bidder. In fiscal year 2004, the land office charged between \$4.16 and \$12.50 per AUM for grazing on lands that it manages. For the most part, grazing fees are based on fair market value within the region. Staff members within the land office conduct on-site evaluations of state lands to assess the value of the lands and forage as a basis for the grazing fee, taking into consideration productivity, range condition, improvements, and location, among other factors. For those state lands without public access, the grazing fees may be negotiated based on the appraised rate with the adjacent landowner. The land office manages almost 750,000 acres, of which almost 550,000 acres were allocated for grazing in fiscal year 2004. Total grazing receipts in fiscal year 2004 were about \$1.2 million.

Utah: The Director of the Utah School and Institutional Trust Lands Administration is required to base the grazing fee on the fair market value of the permit. In fiscal year 2004, the Utah School and Institutional Trust Lands Board of Trustees used a formula to charge \$1.43 or \$2.35 per AUM for grazing on lands that it manages. The board initially used the federal fee as the base rate for the state fee, but it now establishes the state fee by adjusting the previous year's fee up or down, based on the 7-year trend of local prices for cattle, sheep, wool, and hay. The fees on state trust lands

are typically about 60 to 90 cents more than the federal grazing fee: \$2.25 in fiscal year 2004 plus a fee of 10 cents for weed and insect control. When a permit is up for renewal, ranchers or other interested parties, in addition to the current lessee, can submit bonus bids on the permit, but the current lessee has the right to match the bonus bid. On lands gained through land exchanges with the federal government, the federal grazing fee applies: \$1.43 per AUM in fiscal year 2004. The Utah School and Institutional Trust Lands Administration is proposing that the Utah fees be increased over the next 3 to 5 years using a two-fee structure that will increase the fee to \$3.80 per AUM on trust lands that are intermingled with BLM lands and to \$7 per AUM on other trust lands. The board manages about 3.5 million acres of land, of which about 3 million acres were allocated for grazing in fiscal year 2004. Total grazing receipts in fiscal year 2004 were about \$440,000.

Washington: The Washington State Department of Natural Resources has responsibility for issuing rules for the grazing of livestock and is to charge such fees as it deems adequate and advisable. In 2004, the Washington State Department of Natural Resources charged \$5.41 per AUM³ for range permits and \$7.76 per AUM for grazing leases on lands that it manages. Range permits provide only the right to forage over a large area of land for a limited period of time each year, whereas grazing leases provide full leasehold rights, including control of the land. The fee for the range permits is set by a formula that considers several factors, including average livestock weight gain and livestock prices. The fee for the grazing leases is based on a 5-year rolling average of private fees, adjusted downward to account for higher operating costs on state lands, since the state provides no fences or other on-site services. The department manages about 3 million acres of trust lands, of which almost 850,000 acres were allocated for grazing in 2004. Total grazing receipts from range permits and grazing leases in fiscal year 2004 were almost \$650,000.

Wyoming: In Wyoming, the rental of any lease awarded is to be based on an economic analysis and must reflect at least the fair market value for the same or similar use of the land based upon a formula adopted by the Board of Land Commissioners. In fiscal year 2004, the Wyoming Office of State Lands and Investments charged \$4.13 per AUM for grazing on lands that it manages. The grazing fee is established by a formula that multiplies the average private land lease rate per AUM for the 5 years preceding the

³This was the fee per AUM for cattle; for sheep, the grazing fee for range permits was \$1.27 per AUM in 2004.

current year, as estimated by the Wyoming Agricultural Statistics Service, by the 5-year weighted average parity ratio for beef cattle, as established by the National Agricultural Statistics Service, to adjust for changing resource conditions, market demand, and industry viability. The rate is then discounted by 20 percent to reflect lessee contributions. If the office receives an application for a lease at a higher amount, then the present lessee has the right to match the bid. The office manages about 3.6 million acres, of which about 3.5 million acres are used for grazing, including hay land. Total grazing receipts in fiscal year 2004 were almost \$4.2 million.

Comment from Department of the Interior

Note: GAO comments supplementing those in the report text appear at the end of this appendix. (Page references in the letter may differ.)

See comment 1.

See comment 2.



United States Department of the Interior

OFFICE OF THE ASSISTANT SECRETARY
POLICY, MANAGEMENT AND BUDGET
Washington, DC 20240



SEP - 6 2005

Ms. Robin M. Nazzaro
Director, Natural Resources and Environment
Government Accountability Office
441 G Street, N.W.
Washington, D.C. 20548-0001

Dear Ms. Nazzaro:

Thank you for the opportunity to review and comment on the Government Accountability Office (GAO) draft report, *LIVESTOCK GRAZING: Federal Fees Vary Widely, Depending on the Purpose and Approach for Setting the Fees* (GAO-05-869). The following general and specific comments are provided.

General Comment

I am pleased that the GAO recognizes that differences in resource conditions and legal requirements can cause variances in livestock grazing fees. The report points out the difficulty in capturing all the costs of grazing programs; however, the report does not point out sufficiently the significant indirect benefits to other Bureau of Land Management (BLM) programs that are difficult to quantify.

Specific Comments

The BLM is a multiple-use agency and, as such, is directed to provide for some commercial use of the lands within its jurisdiction, and is expected to provide resources such as food and fiber for the benefit of the Nation. The scope and complexity of the BLM's responsibilities for America's rangeland resources demand sound business practices that meet the public's expectations of both proper resource management and fiscal accountability.

The Taylor Grazing Act identified stabilization of the livestock industry dependent on the public range as one of the purposes of the Act. As a result, the BLM and the Forest Service have legislative direction that goes beyond simply obtaining revenue for products that could be made available from those lands.

The following definition for "water base" should be added (p. 13): water that is suitable for consumption by livestock and is available and accessible to the authorized livestock when the public lands are used for livestock grazing (43 CFR 4100.0-5).

Appendix VII
Comment from Department of the Interior

2

See comment 3.

As noted in the draft report (p. 31, n. 16), the BLM applies grazing receipts in accordance with a congressional directive that has appeared in the BLM's appropriations language since 1980, which, we believe, supersedes the provisions in Section 401 of the Federal Land Policy and Management Act, 43 U.S.C. 751(b)(1). The BLM's implementation and interpretation of the statute have been consistent and supported by both the Office of Management and Budget and the Department of the Treasury. On August 4, 2005, attorneys from the Department of the Interior's Office of the Solicitor (SOL) and GAO met and discussed the interpretation of this provision of the law. Our understanding from the meeting is that GAO concurred with the BLM's and SOL's interpretation of the law.

See comment 4.

The BLM would not characterize the purpose of the grazing fee formula as enabling "ranchers to stay in production by keeping fees low to account for conditions in the livestock market" (p. 37). Even though accounting for livestock market conditions affects the fee, many other factors, including access to public land grazing, enable a rancher to stay in production.

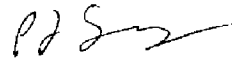
The report points out that livestock operators identify the seasonal importance of public lands grazing access to their operations. As discussed in the draft report (p. 40), the grazing fee formula components are compiled by the Department of Agriculture's, Agricultural Statistics Board and furnished to the BLM and the Forest Service for calculating the grazing fee each year.

See comment 5.

Comparisons of alternative fee structures, such as the McGregor Range, however, are for the most part useless. The western ranch economy could not operate under a system that had bidding similar to McGregor Range, nor would it provide the stability called for by law. A suggested alternative discussion of the McGregor Range in Appendix V (p. 85) is enclosed. Comments from the U.S. Fish and Wildlife Service and the Bureau of Reclamation also are enclosed.

If you have any questions, please contact Bud Cribley, Group Manager, Rangelands and Water Resources Group, on 202-785-6569, or Andrea Nygren, BLM Audit Liaison Officer, Management Systems Group, on 202-452-5153.

Sincerely,



P. Lynn Scarlett
Assistant Secretary
Policy, Management and Budget

Enclosures

The following are GAO's comments on the Department of the Interior's letter dated September 6, 2005.

GAO Comments

1. We disagree. The information in the report accurately and sufficiently reflects the information provided by BLM in many different documents and during multiple meetings with rangeland management officials regarding the benefits from the grazing program to local economies and ranchers. However, the information provided by BLM in these many meetings and documents did not refer to any indirect benefits that accrue to other BLM programs from the grazing program. While Interior's letter states that such significant indirect benefits exist, it does not provide any detail on the nature of these benefits; and therefore, we have not made any modifications to the report.
2. We changed the text to add the definition of a water base.
3. We met with attorneys and staff from BLM and Interior's Office of the Solicitor on August 4, 2005, and have removed the footnote to which Interior refers in its comments.
4. In this section, we are not discussing the purpose of the fee and the grazing fee formula. Rather, we are observing that the fee formula includes factors that incorporate ranchers' ability to pay (BCPI and PPI). We agree that other factors, such as access to public lands, enable ranchers to stay in production and therefore clarified the language, accordingly.
5. We disagree that a comparison of alternative fee structures is useless. It is useful to explicitly and periodically examine the implications of different policy choices as they relate to grazing fees and to consider alternative fee options. Our discussion of the McGregor Range is in the context of a broader discussion of competitive bidding and fees on BLM and Forest Service lands. That discussion clearly and carefully recognizes the impediments to establishing such a system. In particular, we recognize that such a system would only be established if the purpose of the program and fee were different from those which currently exist. BLM provided text to clarify the mixed ownership of McGregor Range, which we included in appendix V.

Comments from the Forest Service



United States
Department of
Agriculture

Forest
Service

Washington Office

1400 Independence Avenue, SW
Washington, DC 20250

File Code: 1420/2230-1
Date: SEP 02 2005

Ms. Robin M. Nazzaro
Director, Natural Resources and the Environment
U.S. Government Accountability Office
441 G Street, N. W.
Washington, DC 20548

Dear Ms. Nazzaro:

Thank you for the opportunity to review and comment on the draft Government Accountability Office (GAO) Report, GAO-05-869, "Livestock Grazing: Federal Fees Vary Widely, Depending on the Purpose and Approach for Setting the Fees." The Secretary of Agriculture has requested that I provide a coordinated response for all Department of Agriculture agencies.

The Animal and Plant Health Inspection Service; Cooperative State Research, Education, and Extension Service; Grain Inspection, Packers and Stockyards Administration; and National Agriculture Statistics Service have no further comments regarding this report.

The report accurately recognizes that the Forest Service grazing fee is set in accordance with an Executive Order that maintains the fee formula established in the Federal Land Policy and Management Act (FLPMA) of 1976 as amended by the Public Rangelands Improvement Act (PRIA) of 1978, and is not related to the cost the Forest Service incurs in the administration of the program.

If you have any technical questions regarding this audit, please contact Ralph Giffen, Rangelands Management Staff, at (202) 205-1455. For general questions regarding the audit, please contact Sandy T. Coleman, Assistant Director of Management Control and Audit, at (703) 605-4699.

Sincerely,

DALE N. BOSWORTH
Chief



Caring for the Land and Serving People

Printed on Recycled Paper



GAO Contact and Staff Acknowledgments

Key Contact

Robin Nazzaro, (202) 512-3841

Staff Acknowledgments

In addition to the contact named above, Andrea Brown, Susan Iott, Mehrzad Nadji, Tony Padilla, Lesley Rinner, Carol Herrnsstadt Shulman, Pam Tumler, and Amy Webbink made significant contributions to this report. In addition, Denise Fantone, Barry Hill, Miguel Lujan, Anne Rhodes-Kline, and Jack Warner made important contributions to the methodologies used in this report.

Related Products

Grazing Reports

Large Grazing Permits. [GAO/RCED-93-190R](#) (Suppl.). Washington, D.C.: July 16, 1993.

Large Grazing Permits. [GAO/RCED-93-190R](#). Washington, D.C.: June 25, 1993.

Rangeland Management: Profile of the Forest Service's Grazing Allotments and Permittees. [GAO/RCED-93-141FS](#). Washington, D.C.: April 28, 1993.

Rangeland Management: BLM's Range Improvement Project Data Base Is Incomplete and Inaccurate. [GAO/RCED-93-92](#). Washington, D.C.: April 5, 1993.

Rangeland Management: Profile of the Bureau of Land Management's Grazing Allotments and Permits. [GAO/RCED-92-213FS](#). Washington, D.C.: June 10, 1992.

Rangeland Management: Results of Recent Work Addressing the Performance of Land Management Agencies. [GAO/T-RCED-92-60](#). Washington, D.C.: May 12, 1992.

Rangeland Management: Assessment of Nevada Consulting Firm's Critique of Three GAO Reports. [GAO/RCED-92-178R](#). Washington, D.C.: May 4, 1992.

Grazing Fees: BLM's Allocation of Revenues to Montana Appears Accurate. [GAO/RCED-92-95](#). Washington, D.C.: March 11, 1992.

Rangeland Management: Interior's Monitoring Has Fallen Short of Agency Requirements. [GAO/RCED-92-51](#). Washington, D.C.: February 24, 1992.

Rangeland Management: BLM's Hot Desert Grazing Program Merits Reconsideration. [GAO/RCED-92-12](#). Washington, D.C.: November 26, 1991.

Rangeland Management: Comparison of Rangeland Condition Reports. [GAO/RCED-91-191](#). Washington, D.C.: July 18, 1991.

Rangeland Management: Current Formula Keeps Grazing Fees Low. [GAO/RCED-91-185BR](#). Washington, D.C.: June 11, 1991.

Rangeland Management: Forest Service Not Performing Needed Monitoring of Grazing Allotments. [GAO/RCED-91-148](#). Washington, D.C.: May 16, 1991.

Rangeland Management: BLM Efforts to Prevent Unauthorized Livestock Grazing Need Strengthening. [GAO/RCED-91-17](#). Washington, D.C.: December 7, 1990.

Rangeland Management: Improvements Needed in Federal Wild Horse Program. [GAO/RCED-90-110](#). Washington, D.C.: August 20, 1990.

Management of the Public Lands by the Bureau of Land Management and the U.S. Forest Service. [GAO/T-RCED-90-24](#). Washington, D.C.: February 6, 1990.

Change in Approach Needed to Improve the Bureau of Land Management's Oversight of Public Lands. [GAO/T-RCED-89-23](#). Washington, D.C.: April 11, 1989.

Management of Public Rangelands by the Bureau of Land Management. [GAO/T-RCED-88-58](#). Washington, D.C.: August 2, 1988.

Public Rangelands: Some Riparian Areas Restored but Widespread Improvement Will Be Slow. [GAO/RCED-88-105](#). Washington, D.C.: June 30, 1988.

Rangeland Management: More Emphasis Needed on Declining and Overstocked Grazing Allotments. [GAO/RCED-88-80](#). Washington, D.C.: June 10, 1988.

Rangeland Management: Profiles of Federal Grazing Program Permittees. [GAO/RCED-86-203FS](#). Washington, D.C.: August 12, 1986.

Rangeland Management: Grazing Lease Arrangements of Bureau of Land Management Permittees. [GAO/RCED-86-168BR](#). Washington, D.C.: May 30, 1986.

Public Rangeland Improvement—A Slow, Costly Process in Need of Alternate Funding. [GAO/RCED-83-23](#). Washington, D.C.: October 14, 1982.

User Fee Reports

User Fees: DOD Fees for Providing Information Not Current and Consistent. [GAO-02-34](#). Washington, D.C.: October 12, 2001.

Federal User Fees: Some Agencies Do Not Comply with Review Requirements. [GAO/GGD-98-161](#). Washington, D.C.: June 30, 1998.

Federal User Fees: Budgetary Treatment, Status, and Emerging Management Issues. [GAO/AIMD-98-11](#). Washington, D.C.: December 19, 1997.

GAO's Mission

The Government Accountability Office, the audit, evaluation and investigative arm of Congress, exists to support Congress in meeting its constitutional responsibilities and to help improve the performance and accountability of the federal government for the American people. GAO examines the use of public funds; evaluates federal programs and policies; and provides analyses, recommendations, and other assistance to help Congress make informed oversight, policy, and funding decisions. GAO's commitment to good government is reflected in its core values of accountability, integrity, and reliability.

Obtaining Copies of GAO Reports and Testimony

The fastest and easiest way to obtain copies of GAO documents at no cost is through GAO's Web site (www.gao.gov). Each weekday, GAO posts newly released reports, testimony, and correspondence on its Web site. To have GAO e-mail you a list of newly posted products every afternoon, go to www.gao.gov and select "Subscribe to Updates."

Order by Mail or Phone

The first copy of each printed report is free. Additional copies are \$2 each. A check or money order should be made out to the Superintendent of Documents. GAO also accepts VISA and Mastercard. Orders for 100 or more copies mailed to a single address are discounted 25 percent. Orders should be sent to:

U.S. Government Accountability Office
441 G Street NW, Room LM
Washington, D.C. 20548

To order by Phone: Voice: (202) 512-6000
TDD: (202) 512-2537
Fax: (202) 512-6061

To Report Fraud, Waste, and Abuse in Federal Programs

Contact:

Web site: www.gao.gov/fraudnet/fraudnet.htm

E-mail: fraudnet@gao.gov

Automated answering system: (800) 424-5454 or (202) 512-7470

Congressional Relations

Gloria Jarmon, Managing Director, JarmonG@gao.gov (202) 512-4400
U.S. Government Accountability Office, 441 G Street NW, Room 7125
Washington, D.C. 20548

Public Affairs

Paul Anderson, Managing Director, AndersonP1@gao.gov (202) 512-4800
U.S. Government Accountability Office, 441 G Street NW, Room 7149
Washington, D.C. 20548